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No. 6355.53



1951-58



ANNUAL REPORT
OF THE
PUBLIC WORKS DEPARTMENT
FOR THE
YEAR ENDING DECEMBER 31, 1954.

BOSTON, January 3, 1955.

HON. JOHN B. HYNES,
Mayor of Boston.

DEAR MR. MAYOR:

In compliance with the provisions of section 24 of chapter 3 of the Revised Ordinances of 1947, I respectfully submit the annual report of the Public Works Department and of the Public Improvement Commission for the year ending December 31, 1954.

FISCAL.

The total expenditures of the department for the year were \$22,762,341.30, of which \$3,313,909.84 represents water assessments levied by the Metropolitan District Commission, and \$544,832.62 represents Metropolitan District Commission sewer assessments.

The receipts of the Water Division totaled \$6,039,268.46, and the revenue derived from the operation of the Sumner Tunnel reached a record high of \$2,224,195.

The operation of the Sumner Tunnel resulted in a record-breaking surplus of \$901,398.72. For the first time since 1938 there was a deficit resulting from the sale of water in the amount of \$116,562.91.

LOAN ORDERS.

On July 6, 1954, a City Council order was approved by your Honor, which provided, under the provisions of section 7 of chapter 44 of the General Laws, that the sum of \$2,000,000 be appropriated for the construction of public ways and the sum of \$2,000,000 be appropriated for the construction of bridges, and on October 19, 1954, that the sum of \$800,000 be appropriated for the construction of an incinerator and the sum of \$125,000 be appropriated to construct buildings at the new Forest Hills Street Yard which is to replace the Child Street Yard.

STREET CONSTRUCTION WORK.

State-Aid Program.

Last year we completed a considerable amount of street reconstruction under the Chapter 90 State-Aid Highway Reconstruction Program. The following important main highways were constructed during the year under the State-Aid Program:

Chestnut Hill avenue, Brighton, from Washington street to the Brookline line.

Hyde Park avenue, Hyde Park, from Cleary square to Metropolitan avenue.

Washington street, City Proper, from Dover street to Northampton street.

Morton street, West Roxbury, from Harvard street to Forest Hills street.

The total cost of the Chapter 90 Construction Program in Boston for the year 1954 was \$551,783.25, of which the State Department of Public Works, under the provisions of section 34 of chapter 90 of the General Laws, paid 49.1 per cent, thereby presenting a substantial savings of \$270,534.26 to the taxpayer. It is planned to again conduct an extensive program of street construction under this chapter in 1955.

NON-STATE-AID PROGRAM.

We also completed a major street reconstruction program, comprising extensive construction and reconstruction, in every section of the city. In addition to work done on downtown streets, the department resurfaced several important traffic arteries, listed as follows:

Bremen street, East Boston, from Sumner street to Porter street.

Meridian street, East Boston, from Saratoga street to Condor street.

Waldemar avenue, East Boston, from McLellan Highway to Crestway road.

Columbia road, South Boston, from Old Harbor street to I street.

Mt. Vernon street, Dorchester, from William T. Morrissey Boulevard, easterly.

Poplar street, West Roxbury, from Canterbury street to Beech street, and from Washington street to Heathcote street.

Weld street, West Roxbury, from Centre street to the West Roxbury Parkway, and from Church street to Maple street.

In continuation of our policy of replacing brick sidewalks with cement concrete in the older sections of the city, contracts during the year, totaling approximately \$90,000, were awarded for this work.

The following is a summarized financial statement of the expenditures made in 1954 for highway improvements:

Budgetary Item.

Public Ways, Construction of (Loan Account) . . .	\$2,081,107 46
Public Ways, Construction of (Revenue Account) . . .	147,856 56
Reconstruction of Streets (Including Sidewalks) . . .	42,994 45
Sidewalks, Construction and Reconstruction of . . .	89,973 07
Total	<u>\$2,361,931 54</u>

The following was a summarized record of the highway improvement work done by the department in 1954:

Number of Streets Constructed or Reconstructed, 170.

Includes 48 new streets ordered laid out and constructed under the provisions of chapter 393 of the Acts of 1906.

Miles of Streets Improved, 21.99.

Includes 4.22 miles of so-called Chapter 90 State-Aid Highway Improvements.

Miles of Sidewalks Improved, 6.13.

In addition to sidewalk improvements included in the above-noted street improvements.

We also completed, during the year, the removal of 235 gas lamps, which were replaced with an equal number of 1,000- or 2,500-lumen electric lamps. It is our intention to continue with this program in 1955.

SNOW REMOVAL.

We were fortunate during the past year in that no snowstorms of major proportions occurred. Only two storms had snowfall of appreciable precipitation, January 11 to 12, 8.3 inches, and December 21 to 22, 6.2 inches, requiring removal by contract forces. We experienced little difficulty in keeping the streets properly plowed and sanded throughout the winter months.

There are 738 miles of public streets that have to be plowed and maintained during the winter months. The department's fleet of thirty-three (33) snow fighters were used to plow, sand, and salt the streets of the downtown area. Most of the plowing work in the rest of the city was done by 250 trucks rented on an hourly basis from contractors.

The cost of snow removal work for 1954 totaled \$471,591.97.

ANDREW P. MCARDLE BRIDGE.

The Andrew P. McArdle Bridge was dedicated and opened to traffic on August 22. This new bridge replaces the old Meridian Street Bridge, between East Boston and Chelsea, and was built under contracts awarded by the State Department of Public Works in accordance with chapter 785 of the Acts of 1951. The substructure was constructed by Meritt-Chapman & Scott Corporation, under a contract awarded November 20, 1951, in the amount of \$1,746,491. The superstructure was constructed by the American Bridge Company under a contract awarded June 20, 1952, in the amount of \$2,939,976. The cost of this bridge was borne jointly by the City and the Commonwealth under an agreement made in 1951 so that, of the total cost of \$4,686,467, the cost to the city was approximately \$2,200,000.

REFUSE DISPOSAL.

Little progress has been made on the South Bay incinerator as we are still awaiting the acquisition of a site which we are trying to obtain from the State Department of Public Works. Metcalf and Eddy, consulting engineers, have practically completed the specifications for the South Bay incinerator equipment and we shall be ready to advertise for bids on this equipment just as soon as a site for the plant is acquired.

The Brighton-Watertown Incinerator Authority did not develop as we had hoped. Chapter 523 of the Acts

of 1954 provided for creating a Brighton-Watertown Incinerator Authority with powers to construct and operate an incinerator for the disposal of refuse from both communities. This act was approved by your Honor and accepted by the Boston City Council but was turned down by the Watertown town meeting. Therefore, it will be necessary for us to make other provisions for the disposal of refuse from Brighton, either by providing sufficient capacity in the South Bay incinerator, or by constructing an incinerator for the Brighton district.

Plans for having the M.D.C. construct an incinerator on the Neponset River marshes in the Cedar Grove section for the disposal of refuse from Dorchester also met with a setback. The M.D.C. was willing to construct, maintain, and operate an incinerator on this site in accordance with provisions of chapter 559 of the Acts of 1952. This act required the approval of the Mayor and City Council of the city in which the M.D.C. plans to erect an incinerator. In spite of your Honor's approval and efforts, the City Council refused to approve the selection of this site for an incinerator.

The failure to obtain incinerator sites aggravates a most pressing problem in refuse disposal, as our land dump sites approach exhaustion.

Contracts for the collection of refuse awarded on April 1, 1954, provided that four (4) more collection districts would be provided with refuse trucks having the modern all-enclosed steel bodies. This makes a total of eleven (11) out of the seventeen (17) collection districts now being furnished with these modern and sanitary rubbish trucks. This improvement in sanitation was obtained with no appreciable increase in collection costs. It is planned to complete the furnishing of these enclosed trucks in the remaining districts of the city next year.

REORGANIZATION.

On May 1, under the provisions of chapter 2, section 56, of the Revised Ordinances of 1954 (Reorganization Plan), practically all of the functions of the former Board of Street Commissioners and the Street Laying-Out Department relating to highways and sewerage works were transferred to the Public Works Department and to the Public Improvement Commission, which was set up in the Public Works Department. This ordinance also provided for the establishment of a Survey

Division in the department. This division now performs engineering services comprising the laying out of public highways, taking of easements for sewerage works, surveys of land to be acquired by eminent domain, and also performs the administrative and engineering duties required by the Public Improvement Commission.

The Public Improvement Commission, a Board in the Public Works Department, is also established by the aforementioned ordinance and consists of the Commissioner of Public Works, the Commissioner of Real Property, and the Chairman of the Traffic Commission, *ex officio*. The functions of this commission include the processing of petitions, arranging public hearings, preparing estimates and orders relating to land damages and street and sewer betterments, preparing orders for the laying out of streets and the construction of streets and sewers, preparing orders for eminent domain land takings and preparing orders for the granting of permits for the use of public highways, erections of poles, etc., and the maintenance of all records in charge of the commission.

On June 2, 1954, the Bridge and Highway Division, established in 1950, was abolished, and two separate divisions were established to be known as the Bridge Division and the Highway Division.

PURCHASE OF EQUIPMENT.

New equipment purchased during the year included one (1) Barber-Greene bucket loader, one (1) Trojan bucket loader, two (2) Elgin street sweepers, two (2) Wayne street sweepers, one (1) Buick sedan, two (2) Chevrolet sedans, thirteen (13) Ford sedans, two (2) Chevrolet pickup trucks, three (3) Chevrolet express trucks, one (1) Chevrolet truck with catch-basin cleaner, nine (9) Ford pickup trucks, three (3) Ford utility trucks, four (4) Ford one and one-half-ton dump trucks, two (2) Ford trucks to carry compressors, and one (1) Ford hydrant truck.

PERSONNEL.

There were 2,052 employees in the department as of December 31, as compared with 2,166 employees on January 21, 1954. There was an actual reduction in personnel during the year of 174 because we acquired an additional 60 employees by transfer upon taking over the former Street Laying-Out Department personnel on May 1, 1954.

DETAILED REPORTS.

Appended hereto are reports submitted by the division engineers relative to the activities of their divisions in 1954 and also a report of the Public Improvement Commission covering its activities from May 1 to the end of the year.

Respectfully submitted,

GEORGE G. HYLAND,
Commissioner of Public Works.

The records of the department show that there are now 2,050 persons eligible for employment in the several divisions, and of that number 2,031 were upon the January 1, 1955, payrolls.

Grade and Number of Employees.

TITLE.	SERVICES.									
	Central Office.	Automotive.	Bridge.	Highway- Lighting.	Sanitary.	Sewer.	Tunnel.	Water.	Survey.	Total.
Commissioner.....	1									1
Division engineers.....		1	1	1	1	1		1		6
Chief engineer.....									1	1
Associate civil engineer.....	1									1
Assistant division engineer.....				1						1
Superintendents and assistants.....		1	1	2	2	1	1	2		10
District supervisors.....					13					13
Supervisors and assistants.....	1	1		2			1	1		6
Principal senior and civil engineers...			11	18		22		4	9	64
Junior civil engineer.....			3	2		4		1	4	14
Senior engineering aids.....				15		9		2	9	35
Junior engineering aids.....			1	2		1		1		5
Senior public relations representative					1					1
Automotive and senior electrical engineers.....		1					2			3
Assistant electrical engineers.....				2						2
Chief pumping station engineer.....						1				1
Pumping station engineers and sta- tionary engineers.....						4				4
General foreman.....					1					1
District foremen.....				12	7	5		5		29
Other foremen.....		10	1		3	1	2	6		23
Chief inspectors.....						2				2
Inspectors.....		1	5	66	68	13		18		171
Legal assistant.....								1		1
Chief electrician.....							1			1
Electrician operators.....			1			2	14			17
Electrician.....				1						1
Executive secretary, P.W.D.....	1									1
Executive secretary and assistants...									2	2
<i>Carried forward.....</i>	4	15	24	124	96	66	21	42	25	417

Grade and Number of Employees.—Continued.

TITLE.	SERVICES.									
	Central Office.	Automotive.	Bridge.	Highway- Lighting.	Sanitary.	Sewer.	Tunnel.	Water.	Survey.	Total.
<i>Brought forward</i>	4	15	24	124	96	66	21	42	25	417
Senior personnel officer and assistants	2	...	...	...	...	...	...	...	...	2
Head administrative clerk.....	1	...	...	...	1
Head clerks.....	...	1	1	1	1	2	1	3	1	11
Principal clerks and secretaries.....	1	...	...	1	...	...	...	...	1	3
Principal clerks, stenographers, ac- count clerks, etc.....	1	3	2	8	2	4	1	7	4	32
Technical clerk.....	1	...	1
Senior clerks, typists, stenographers, etc.....	2	4	1	3	3	2	...	30	1	46
Clerk-stenographers, clerks, typists.....	...	2	1	5	2	1	...	16	2	29
Telephone operators.....	1	...	...	1	...	2
Head cashier.....	1	...	...	1
Senior cashier and cashiers.....	1	1	...	...	5	2	...	9
Principal storekeepers.....	...	1	...	...	1	...	...	...	...	2
Senior storekeeper and storekeepers.....	...	1	...	...	...	...	1	1	...	3
Chief water meter reader.....	1	...	1
Supervisor and special water meter readers.....	6	...	6
Water meter readers and clerks.....	30	...	30
Sergeant tollmen guards.....	3	...	...	3
Tollmen guards.....	46	...	...	46
Supervisor, mobile guard.....	...	1	...	...	...	...	...	...	...	1
Sergeant, mobile guard.....	...	1	...	...	...	...	...	...	...	1
Mobile guards.....	...	13	...	...	...	...	...	...	...	13
Drawtenders and assistants.....	128	...	...	...	...	...	...	128
Marine captains.....	1	...	1	...	...	...	...	2
Analytical chemist.....	1	...	...	...	...	...	1
Chief and senior investigator.....	1	...	...	...	...	...	1
Estimators and investigators.....	7	...	...	...	...	...	7
Dispatcher.....	...	1	...	...	...	...	...	...	...	1
Plumbers.....	25	...	25
Head photostat operator.....	1	1
Photostat operators.....	1	...	...	1	2
<i>Carried forward</i>	10	43	159	152	107	77	79	165	36	828

Grade and Number of Employees.—Concluded.

TITLE.	SERVICES.									
	Central Office.	Automotive.	Bridge.	Highway-Lighting.	Sanitary.	Sewer.	Tunnel.	Water.	Survey.	Total.
<i>Brought forward</i>	10	43	159	152	107	77	79	165	36	828
Principal duplicating machine operator.....									1	1
Sewer gateman.....						5				5
Yardmasters and yardmen.....			1	3	1	3		6		14
Road roller operators.....				4						4
Working foremen.....		1	3	2	1	5	1	18		31
Sewage screen operators.....						2				2
Firemen and oilers.....						13				13
Steamfitters.....				1				1		2
Repairmen and maintenancemen.....		35	2	3	1	10	3	78		132
Crane operators.....				1				1		2
Maintenance mechanics and helpers, etc.....		3			5			22		30
Carpenters.....			10	4	7	1		1		23
Painters.....		3	2	2	7		1			15
Pavers.....				57				2		59
Blacksmiths and helpers.....				1	16			2		19
Bricklayers.....					1	4		1		6
Sewer cleaners.....						19				19
Catch-basin machine operators.....						10				10
Heavy motor equipment operators.....		2		12	54	1	12	17		98
Motor equipment operators.....		6	6	50	110	28		26		226
Garage attendants.....		19					2			21
Laborers.....		25	3	82	302	18	7	40		477
Constables.....				1	8			4		13
Totals.....	10	137	186	375	620	196	105	384	37	2050

**Number of Employees Actually Employed January 1, 1954, and
January 1, 1955.**

	Survey.	Tunnel.	Central Office.	Bridge.	Water.	Paving and Lighting.	Sanitary, Street Cleaning.	Sewer.	Automotive.	Total.
January 1, 1954.....	0	106	11	197	418	385	681	215	135	2,148
January 1, 1955.....	36	104	10	185	380	370	616	195	134	2,031

Total Eligible Force.

January 1, 1954.....	0	107	11	199	421	390	682	219	137	2,166
January 1, 1955.....	37	105	10	186	384	375	620	196	137	2,050

**Appointments, Transfers, Resignations, Retirements, Deaths,
etc., of Employees.**

Died.	Retired.	Transferred to Other Departments.	Transferred to Other Services.	Discharged.	Resigned.	January 1, 1954.	SERVICES. 1954-1955.	January 1, 1955.	Transferred from Other Services.	Transferred from Other Departments.	Reinstated.	Appointed.
.....	.....	1	2	.....	.....	11	Central Office...	10	2	.....	.....	.....
2	4	.....	3	.....	.....	137	Automotive.....	137	6	.....	.....	3
3	10	1	1	.....	1	199	Bridge.....	186	.....	2	.....	1
7	33	4	2	.....	3	390	Highway.....	375	8	12	1	13
11	45	.....	8	2	7	682	Sanitary.....	620	3	6	1	1
2	19	1	7	1	3	219	Sewer.....	196	1	4	.....	5
.....	.....	2	.....	.....	.....	*35	Survey.....	37	4	.....	.....	.....
1	6	.....	1	.....	1	107	Tunnel.....	105	1	.....	.....	6
5	36	.....	1	2	7	421	Water.....	384	1	1	2	10
31	153	9	25	5	22	2201	Totals.....	2050	26	25	4	39

* May 1, 1954.

MAINTENANCE APPROPRIATIONS AND EXPENDITURES.

DIVISION OR SERVICE.	Total Appropriations, Including Transfers and Amounts Carried Over from 1953.	Expenditures.	Unexpended Balance.
Central Office	\$61,903 68	\$61,903 68	\$0 00
Automotive Division	688,667 17	686,205 66	2,461 51
Bridge Division	782,403 00	771,737 87	10,665 13
Highway Division	1,382,138 29	1,381,887 79	250 50
Lighting Service	1,341,372 80	1,343,672 70	0 00
Sanitary Division	4,932,536 12	4,868,819 48	63,716 64
Sewer Division	841,664 92	826,479 69	15,185 23
Sumner Tunnel	606,090 63	599,052 25	7,038 38
Survey Division*	112,199 30	112,199 30	0 00
Water Division	2,391,610 00	2,323,072 10	68,537 90
Totals	\$13,140,585 91	\$12,975,030 52	\$164,855 29

* From May 1.

LOANS AND SPECIAL APPROPRIATIONS.

TITLE.	Total Amount Available.	Expenditures.	Unexpended Balance.
Bridges, Construction of (Revenue).....	\$318,536 59	\$43,000 00	\$275,536 59
Bridges, Construction of (Non-Revenue).....	4,089,630 07	1,985,723 69	2,103,906 38
Bridges, Repairs, etc. (Revenue).....	384,683 50	291,667 70	93,015 80
Reconstruction of Streets (Revenue).....	100,123 66	42,994 45	57,129 21
Sidewalks, Construction and Reconstruction (Revenue)	130,397 21	89,973 07	40,424 14
Street Signs (Revenue).....	22,634 27	21,199 99	1,434 28
Public Ways, Construction of (Revenue).....	157,000 00	147,856 56	9,143 44
Public Ways, Construction of (Non-Revenue).....	3,788,345 90	2,081,107 46	1,707,238 44
Snow Removal (Revenue).....	529,423 73	471,591 97	57,831 76
Sewerage Works (Revenue).....	10,762 32	7,818 03	2,944 29
Sewerage Works (Non-Revenue).....	873,940 86	625,508 01	248,432 85
Construction of Buildings and Original Equipment and Furnishings Thereof (Non-Revenue).....	11,900 44	3,239 35	8,661 09
Incinerator Building, Construction and Equipping (Non- Revenue).....	1,200,000 00	0,000 00	1,200,000 00
Extension and Improvement of Water Mains (Revenue)	200,000 00	116,888 04	83,111 96
Totals.....	\$11,817,378 55	\$5,928,568 32	\$5,888,810 23

REVENUE.

On Account of Public Works Department.

Central Office:		
Charges for plans and specifications	\$1,864 00	\$1,864 00
Automotive Division:		
Sale of junk	\$274 53	274 53
Bridge Service:		
Rents	\$3,902 50	
Damage to property	8,245 61	
Refund on drums	108 50	
Miscellaneous	584 00	
Sale of junk	255 16	
		13,095 77
Sumner Tunnel:		
Tolls	\$2,224,195 00	2,224,195 00
Lighting Service:		
Sale of junk	\$2,558 19	2,558 19
Paving Service:		
From assessments (added to taxes) on abutters for cost of laying sidewalks in front of their premises	\$4,430 38	
Permits	23,146 05	
Sale of materials	1,191 97	
Contributions from Commonwealth of Massachusetts under chapter 90 of General Laws for construction of public ways	256,566 66	
		285,335 06
Sanitary Division:		
Sale of garbage	\$13,230 71	
Sale of junk	29 59	
Dumping	483 61	
		13,743 91
Sewer Division:		
Disposal of sewage	\$19,233 00	
Entrance fees	13,518 46	
Rents	229 00	
Refunds	438 55	
Miscellaneous	327 43	
		33,746 44
Water Division:		
Water rates	\$5,621,332 81	
Water rates added to taxes	284,478 02	
Service pipes for new takers, extending, repairing, etc.	1,300 27	
Fees on overdue rates	6 60	
Sale of junk	1,134 32	
Damage to property	1,579 88	
Labor and materials	11,502 03	
Deposit account	81,104 51	
Elevator and fire pipe connections	731 93	
Miscellaneous income	500 61	
		6,003,670 98
Grand total		\$8,578,483 88

APPENDIX A.

REPORT OF THE AUTOMOTIVE DIVISION FOR
THE YEAR 1954.

BOSTON, January 3, 1955.

To the Commissioner of Public Works.

DEAR SIR:

I am submitting herewith the annual report of the Automotive Division of the Public Works Department for the year ending December 31, 1954. This report covers the activities of the four garages and the offices of the Automotive Division, and the activities of the Mobile Patrol and the Motor Pool.

The one hundred and twenty-seven employees charged to the Automotive Division are engaged in the following duties: One division engineer in charge of the division; ten employees assigned to office work; forty-seven employees assigned to repair and maintenance of automotive equipment, also twelve employees paid from the Water Division appropriation are assigned to this work; twenty-seven employees assigned to gasoline and oil dispensing, cleaning and watchman duties, etc.; thirty-nine men assigned to the Mobile Guard section; and three employees assigned to the Motor Pool.

The office maintained by the Automotive Division at City Hall processed 2,332 requisitions in 1954, of which 1,240 were service orders, and 1,092 were purchase orders. Approximately 100 purchases a month, usually under \$3 each, were made from a petty cash fund of \$300. The City Hall office reports the following expenditures for 1954:

Group 1.	Personal services	\$436,306 50
Group 2.	Contractual services	50,274 65
Group 3.	Materials and supplies	156,694 88
Group 4.	Rents and registration fees	12,372 79
Group 5.	Purchase of new equipment	30,556 84
		<u>\$686,205 66</u>

The new equipment added to our fleet in 1954 consisted of the following:

- One Barber-Greene belt and bucket loader.
- One Ford utility truck.
- One Chevrolet truck with catch-basin cleaner.
- One Trojan front bucket loader.

Replacements to the fleet in 1954 consisted of the following:

- One Buick sedan.
- Thirteen Ford sedans.
- Two Chevrolet sedans.
- Two Elgin sweepers.
- Two Wayne sweepers.
- Nine Ford pickup trucks.
- Two Chevrolet pickup trucks.
- Four Ford 1½-ton dump trucks.
- Three Chevrolet covered express trucks.
- One Ford truck with Ingersoll-Rand compressor.
- One Ford truck to carry Gyro air compressor.
- Two Ford utility trucks.
- One Ford hydrant truck.

The number of each type of automotive equipment in the Public Works Department as of December 31, 1954, was as follows:

Passenger cars	68
Trucks, ½-ton	67
Trucks, 1- to 1½-ton	99
Trucks, 2- to 3-ton	88
Trucks, 5- to 8-ton	8
Compressors	12
Trailer compressors	2
Crawler tractors	2
Street flushers	6
Sidewalk rollers	11
Street sweepers	24
Snow fighters	37
Snow loaders and bucket loaders	7
Front bucket loaders	18
Miscellaneous equipment	47
(trailers, lighting plants, generators, steam cleaners, lawn mowers, etc.)	

TOTAL	<u>496</u>
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The repair shop performed about 100 overhaul jobs, 1,000 major repair, and 12,000 minor repair jobs.

Semiannual inspections are held, and a monthly lubrication schedule is maintained at which time inspection of equipment is made. The repair and maintenance crew was kept busy during the two hurricanes in 1954, and some of the equipment, especially the Trojan front bucket loaders, proved of great value. The Trojans were used in pairs to pick up debris, and the Walter snow fighters were put to use pulling stumps. The lack of a self-propelled crane for this type of emergency work became evident. Once again the lighting plants proved their worth in an occasion of this sort.

During 1954 we completed the transfer of our Baughman sand spreaders from the Dodge and Ford 1½-ton trucks to new Ford F750 trucks (the equivalent of a 2½-ton truck) which are better for a spreading and plowing operation. We have set up a heavy equipment group of repairmen who work during the winter months on snow fighters and Trojans, and then repair the street sweepers and flushers during the summer months.

The welding shop employees continued the policy of scraping and painting the snow fighters and sand spreaders during the summer months.

The Mobile Guard section operated satisfactorily during 1954 and the Motor Pool section expanded its services to the other city departments. The Motor Pool section now consists of one dispatcher, and nine drivers (two from the Automotive Division), and all of the latter are assigned to city-owned cars. Seven of these drivers are assigned to the commissioner and division heads of the Public Works Department, and report to the dispatcher, usually around 11 A.M. daily, after having discharged their duties for the individual to whom they have been assigned.

Upon reporting, they are sent out on assignments which have been requested by those in authority either by telephone or by radio. When their specific tasks have been completed, they contact the base by radio to ascertain if additional requests have been made. All of these cars are equipped with two-way radios. The dispatcher makes all assignments to the drivers, and also operates the base radio which is located at 174 West Second street, South Boston. Within the Public Works Department there are 41 cars equipped with two-way

radios, and these cars were put to good use during the hurricanes when the public communications systems broke down.

The Motor Pool assignments outside the Public Works Department consist of the following:

Welfare Department, conveying patients to Tewksbury and Long Island.

Purchasing Department, conveying inspectors to sources of supplies.

Public Library, checking mobile library units.

Election Department, conveying voting machine inspectors, and work on election days.

Assessing Department, Printing Department, Public Celebrations, Mayor's Office, various assignments.

The Mobile Guard section is assigned four motor vehicles, of which two are equipped with two-way radios. The mobile guards assigned to various shifts, 4 P.M. to 12 midnight, and 12 midnight to 8 A.M., have the duty of making several tours of duty in each eight-hour shift to various locations in different parts of the city. To facilitate and to more expeditiously perform this work, the city is divided into three specific routes. The guards inspect all yards and ring watchclocks. They also patrol dumps, protect bridges in emergencies, and check oil burners, etc. The watchmen, also on different shifts, are permanently assigned to locations where experience has shown that it is advisable to have a man present at all times to protect city property.

Respectfully submitted,

J. LEO McGRATH, *Division Engineer.*

VEHICLE ACCIDENT BREAKDOWN, 1949 THROUGH 1954.

YEAR.	January	February	March	April	May	June	July	August	September	October	November	December	Total	YEAR.
1949 *	22	17	16	11	11	5	13	19	15	9	18	23	179	1949
1950	23	31	21	22	13	18	3	13	19	15	19	20	217	1950
1951	32	28	24	11	24	21	11	14	14	16	17	28	240	1951
1952 †	33	57	17	11	18	12	12	20	16	19	12	21	248	1952
1953	24	29	24	17	18	21	19	9	21	16	14	9	221	1953
5-year average	27	32	20	14	17	15	12	15	17	15	16	20	221	5-year average
1954 ‡	42	10	13	13	11	10	15	14	20	8	11	24	191	1954

* 1949 report incomplete. Automotive Division established 1950.

† Mayor's Automotive Advisory Committee and Accident Review

‡ Point system introduced by State Registry of Motor Vehicles.

Board established 1952.

APPENDIX B.

REPORT OF THE DIVISION ENGINEER OF
THE BRIDGE DIVISION.

BOSTON, January 3, 1955.

To the Commissioner of Public Works.

DEAR SIR:

Submitted herewith is the annual report of the Bridge Division, covering the income, expenditures, and operation of the Bridge Service and the Sumner Tunnel for the year ending December 31, 1954.

Prior to June 2, 1954, these two services comprised the Bridge Section of the former Bridge and Highway Division, which was abolished on that date with the establishment of the Bridge Division and Highway Division as separate divisions.

Respectfully,

JOHN J. McCALL,
Division Engineer.

1. BRIDGE SERVICE.

Summary of Budget Appropriations and Expenditures.

	Regular Appropriation	Bridges, Repairs, Etc.	BRIDGES, CONSTRUCTION OF	
			Revenue.	Non-Revenue.
Balance from 1953.....	—	\$284,683 50	\$161,536 59	\$2,089,630 07
1954 Appropriation.....	\$782,403 00	200,000 00	157,000 00	2,000,000 00
Total Credits.....	\$782,403 00	\$484,683 50	\$318,536 59	\$4,089,630 07
Transfers from.....	—	100,000 00		
		\$384,683 50		
Expenditures.....	771,737 87	291,667 70	43,000 00	1,985,723 69
Unexpended Balance.....	\$10,665 13	\$93,015 80	\$275,536 59	\$2,103,906 38

DETAILS OF EXPENDITURES ON TIDEWATER BRIDGES.

TIDEWATER BRIDGES — 1954.

Bridge.	Draw- tenders' Salaries.	Mechanics' Wages.	Material.	Repair Bills.	Supplies, Utilities, Etc.	Total.
Broadway.....	\$17,561 40	\$3,305 07	\$44 82	\$83 86	\$357 41	\$21,352 56
Charlestown.....	72,455 90	9,717 10	1,248 64	3,017 06	967 55	87,406 25
Chelsea South.....	36,260 10	2,083 46	244 39	597 58	489 81	39,675 34
Chelsea Street.....	48,286 95	3,038 69	177 46	255 51	738 56	52,497 17
Congress Street.....	44,925 71	5,229 56	449 86	1,056 35	873 72	52,535 20
Dover Street.....	16,538 70	5,698 53	1,051 54	792 28	360 72	24,441 77
L Street.....	40,622 33	5,850 92	563 29	343 47	609 56	47,989 57
Malden.....	50,882 72	6,221 86	870 98	678 37	813 20	59,467 13
Northern Avenue.....	50,826 16	5,544 78	640 22	1,818 53	2,793 66	61,623 35
Summer Street.....	44,216 36	13,696 73	5,498 30	1,477 74	794 30	65,683 43
Warren.....	33,346 15	10,599 84	2,301 47	1,316 43	613 15	48,177 04
Andrew P. McArdle....	17,170 40	512 50	—	183 80	1,262 49	19,129 19
Totals.....	\$473,092 88	\$71,499 04	\$13,090 97	\$11,620 98	\$10,674 13	\$579,978 00

2. *Special Appropriations:*

BRIDGES, REPAIRS, ETC.

	1954 Payments.
CONTRACTS.	
Various Footbridges.	
Repairs and cleaning, etc., Charles A. Reynolds Company	\$6,301 07
Charlestown Bridge Storehouses.	
Bituminous concrete pavements, John A. McCourt Company	428 10
Babson Street and Dana Avenue Bridges.	
Redecking of bridges, Martin J. Kelly Company, Inc.	2,725 47
Milton Bridge.	
Rebuilding upstream sidewalk over Neponset River, Charles Callahan Company	8,020 79
West Fourth Street Bridge.	
Bituminous concrete pavement, Baker Company	479 96
Winthrop Bridge.	
Repairs to bridge between Boston and Winthrop, Boston's share 60 per cent, John F. Shea Company, Inc.	3,749 92
Everett Bridge.	
Redecking of bridge, Martin J. Kelly Company, Inc.	30,732 11
Northern Avenue Bridge.	
Repairs to bridge, over Fort Point Channel, Rev-Lyn Contracting Company	136,850 10
Malden Bridge.	
Repairs to bridge over the Mystic River, Martin J. Kelly Company, Inc.	16,665 41
Navigation Lights on Various Bridges.	
Renew and repair lights on bridges, W. H. Hughes Electric Service	1,432 00
Summer Street Bridge.	
Repairs to drawbridge and foundation, the Crandall Engineering Company . . .	23,000 00
Chelsea Street Viaduct.	
Remove wearing surface, Rufo Construction Company, Inc.	2,446 00
Malden Bridge.	
Underwater inspection No. 1 by Nick Tracy	2,786 52
Summer Street Bridge. (Reserved Channel.)	
Wash borings, etc., Marine Diving and Ship Service	1,622 55
Summer Street Bridge.	
Underwater inspection No. 2 by Nick Tracy	4,683 60

Northern Avenue Bridge.

Repairs to electric wiring, W. H. Hughes

Electric Service \$1,047 59

Charlestown Bridge.

Inspection of structural steel work, the
Carney Construction Company . . .

4,795 00

Southampton Street and Cummins Highway
Bridges.Redecking of bridges, Martin J. Kelly
Company, Inc.

20,160 43

Malden Bridge.

Steel repairs on the bridge, Owen J. McGar-
rahan Company

8,134 27

(2) Highway and (1) Footbridge.

Cleaning and painting, H. Piken Com-
pany

6,800 00

Service Orders.

Charged to Bridge, Repairs, etc., repairs to
various bridges

8,608 81

City Record.

Advertising various contracts 198 00

 Total \$291,667 70

BRIDGES, CONSTRUCTION OF (REVENUE)

West Fourth Street Bridge.

Concrete deck on Spans 3, 4, and 5, and
repair sections, Spans 2 and 6, of West
Fourth Street Bridge, C. J. Maney Com-
pany, Inc.

\$43,000 00

 Total \$43,000 00

BRIDGES, CONSTRUCTION OF (NON-REVENUE)

Charlestown Bridge.

Strengthening of the bridge, the Crandall
Engineering Company

\$69,980 94

Meridian Street Bridge.

Engineering services in the construction
of the bridge, Charles Maguire As-
sociates

20,000 00

Andrew P. McArdle Bridge.

Rebuilding of bridge, formerly known as
Meridian Street Bridge, American
Bridge Company

1,718,689 01

Broadway Bridge.

Construction of concrete deck on bridge,
Martin J. Kelly Company, Inc. . . .

177,053 74

 Total \$1,985,723 69

At the beginning of 1954 the Bridge Division operated eleven drawbridges. On August 22, 1954, the new bridge at Meridian street, connecting East Boston with Chelsea, was officially dedicated as the Andrew P. McArdle Bridge and opened to traffic, making a total of twelve drawbridges operated by this division.

The new McArdle Bridge was built under contracts awarded by the Massachusetts Department of Public Works, which agency furnished the field engineering and supervision.

The cost of the new bridge was borne jointly by the city and the Commonwealth, under an agreement whereby the city paid \$2,200,000 toward the total cost, which is expected to be \$4,660,000.

Under a related contract with the Charles A. Maguire Associates, consulting engineers, the city has paid \$148,461.64 to that firm for the engineering services involved in designing the bridge, making contract plans, specifications, estimates, etc., and furnishing engineering supervision in the city's interest. Upon acceptance of the bridge by the Commonwealth, the city will make a final payment to the Maguire firm of \$10,368.30.

On November 26, 1954, the Warren Bridge was permanently closed to all highway traffic and the drawspans pulled off to allow unobstructed passage for marine traffic, as a result of the new Central Artery connection between Boston Proper and Charlestown being opened to two-way traffic.

However, the Warren Bridge is being maintained in operable condition for possible emergency use until such time as the Charlestown Bridge has been restored to first-class condition by repairing and redecking.

The Chelsea South Drawbridge is still in operation, serving as a highway connection for minor traffic between Chelsea street, Charlestown, and the Mystic Docks. It is expected that the laying out and construction of Terminal street will commence in 1955; and upon completion of such work the Chelsea South Bridge will be put out of operation. For this reason the department is not making any repairs to this structure except such emergency maintenance repairs as necessary to keep the bridge in operation. In general, the bridge is in very poor condition.

As regards the other drawbridges, the rebuilding of the Summer Street Bridge, over Fort Point Channel, a vitally needed improvement, has been deferred because

of the apparent necessity for providing a wider waterway through the draw to accommodate sugar cargo vessels, which will require more extensive planning and additional funds.

The Malden Bridge (Alford Street Bridge), over the Mystic River, which connects Charlestown with Everett, is in very poor condition and should be replaced as soon as possible by a new bridge. To this end the city has filed a bill with the 1955 Legislature, requesting that the Commonwealth be authorized to rebuild this bridge.

The necessity of replacing this bridge as soon as possible was made clearly evident in 1954, when a contract was awarded to cover repairs to the steel decking and the steel floor system. After the initial cleaning of the main steelwork prior to making repairs, it was discovered that the main members of the floor system and counterweight tower span foundation were so seriously defective that the bridge was closed to highway traffic on April 7, 1954, and the contract covering the repair work was amended to permit much more extensive emergency repairs. This work was completed and the bridge reopened to traffic on May 28, 1954.

A subsequent contract was awarded in order to complete the minor portion of repairs by welding, etc., that could not be accomplished under the first contract referred to.

An underwater inspection of the pile trestle approaches and masonry piers of this bridge was made in 1954, and the defective conditions found relative to the pile work (although not too serious at the present time) further stress the need of a new bridge at this location. The masonry landing pier for the drawspan was found to be in immediate need of repairs by resetting stones and pointing the joints; accordingly a contract was awarded for that purpose, as described hereinafter.

The Charlestown Bridge has been in need of extensive repairs and redecking for some time and it is expected that such work will be commenced in 1955.

In connection with this proposed work, an extensive inspection was made of the main steelwork of the entire bridge to determine the extent of repairs necessary.

On December 18, 1954, the department advertised for bids for constructing steel decks on the Congress Street and Chelsea Street Bridges.

An important improvement made in 1954 was the redecking of the drawspan of the Northern Avenue

Bridge. Very extensive steel repairs to the main steel-work of the floor system were found necessary because of the effect of the heavy freight car traffic which passes over this bridge. The entire wooden underdeck of the drawspan was renewed, using heavier plank, and a new wearing surface of asphalt plank installed.

The mechanical operating plant of this bridge, including air compressors, motors, turning engines, etc., is in need of repairs, and it is intended to make a study as soon as possible toward the modernization of this system.

A study was begun in 1954 to determine the feasibility of making solid fill approaches at the Summer Street Bridge, over Reserved Channel (L Street Bridge), to replace the wooden pile trestle structure, which is in need of extensive repairs.

The Dover Street Bridge is also in need of extensive repairs and redecking. However, this work has been deferred until the location and layout of the new Central Artery in that area has been finally determined, in order that any work done on the present bridge will not be in conflict with the artery construction.

The rebuilding of three spans of the West Fourth Street Bridge (over the New York, New Haven & Hartford Railroad tracks), which had been demolished by fire late in 1953, was well under way at the beginning of the year.

The work (described hereinafter) was executed under an agreement between the city and the New Haven Railroad, whereby the railroad company contracted for repairs to the masonry piers and erecting new steelwork and fences; and the city contracted for the construction of the new reinforced concrete deck, wearing surface, curbs, sidewalks and street light facilities. Both agencies negotiated with the same contractor, C. J. Maney Company.

The work was completed and the bridge reopened to traffic on March 8, 1954. The total cost to the city was \$43,000.

With regard to the operation of drawbridges, it may be said that as time progresses there is less justification each year for these bridges operating on a 24-hour-a-day basis. This is borne out by the records which will show that since 1948 the total number of draw openings required has decreased from 31,663 openings in 1948 to 14,196 openings in 1954.

In keeping with this trend, the department petitioned the U. S. Engineers for permission to restrict operation of the Broadway and Dover Street Bridges. This petition was approved, and effective as of March 19, 1954, these two bridges operate from 8 A.M. to 4 P.M., Monday through Friday, and otherwise only through prior notice of 24 hours in advance.

With a view towards accomplishing the same result on other bridges, the department has also requested the U. S. Engineers to invite all interested parties to an informal discussion on this matter.

DRAW OPENINGS, 1954.

BRIDGES.	STEAMERS.			TUGS.			BARGES.			PLEASURE CRAFT.			ALL OTHERS.			TOTAL NUMBER. OF VESSELS.			TOTAL NUMBER OF CARGOES.	TOTAL NUMBER OF OPENINGS.
	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.		
Broadway	2	0	2	7	0	7	0	0	0	0	0	0	8	0	8	17	0	17	4	9
Charlestown	0	0	0	46	19	65	136	69	205	48	24	72	44	6	50	274	118	392	44	312
Chelsea South	9	2	11	400	354	754	3	3	6	0	0	0	193	169	362	605	528	1,133	53	802
Chelsea Street	377	53	430	3,001	422	3,423	750	427	1,177	0	0	0	306	35	341	4,434	937	5,371	846	2,197
Congress	78	13	91	1,262	81	1,343	372	26	398	54	0	54	559	54	613	2,325	174	2,499	505	1,374
Dover	0	0	0	0	0	0	29	0	29	26	0	26	7	0	7	62	0	62	16	29
Malden	10	0	10	220	60	280	384	150	534	74	14	88	351	81	432	1,039	305	1,344	273	1,184
McArdle	169	134	303	1,305	547	1,852	286	266	552	3	0	3	217	38	255	1,980	985	2,965	468	1,326
Northern Avenue	55	35	90	2,298	320	2,618	243	45	288	30	4	34	1,529	97	1,626	4,155	501	4,656	801	2,129
Summer (Fort Point Channel)	53	37	90	1,200	249	1,449	127	27	154	0	0	0	633	29	662	2,013	342	2,355	430	1,177
Summer (Reserve Chan- nel)	0	0	0	322	64	386	414	56	470	851	142	993	77	12	89	1,664	274	1,938	275	1,832
Warren	2	0	2	525	224	749	344	207	551	1,270	688	1,958	214	85	299	2,355	1,204	3,559	422	1,825
Totals	755	274	1,029	10,586	2,340	12,926	3,088	1,276	4,364	2,356	872	3,228	4,138	606	4,744	20,923	5,368	26,291	4,137	14,196

MAJOR CONSTRUCTION WORK AND REPAIRS.

A description of the major improvements and more important work undertaken in 1954 by the Bridge Service, is as follows:

Strengthening the Piers of the Charlestown Bridge, Over the Charles River.

The project of strengthening the masonry pier foundations of the Charlestown Bridge was completed on April 12, 1954, under a contract awarded to the Crandall Engineering Company. This work was started in 1949 as a result of the serious conditions discovered in an underwater inspection of the pier foundation, made that year.

Under a series of successive contracts with the above-named company, all of the masonry pier foundations, except piers No. 1 and No. 10, were cofferdammed with steel sheeting, and after removing all loose mud, etc., from within the cofferdams and the cofferdams tied to the piers by means of steel anchor rods, the cofferdams were then filled with concrete to a grade of 2 feet above mean low water, thus consolidating the original concrete foundations overlaying the wooden support piles. The steel cofferdams were left in place and cut off at the grade of the new concrete. The total cost of this project, which was commenced on August 17, 1949, was \$826,624.69.

Construction of Concrete Deck, Etc., on Broadway Bridge, Over Fort Point Channel.

Under a contract which was awarded to Martin J. Kelly Company, Inc., in 1952 for this work, the work started on March 2, 1953, and was completed on March 12, 1954, at a total cost of \$598,587.24.

Repairs to the Winthrop Bridge, Between Boston and Winthrop.

Work under this contract started on July 22, 1953, under a contract awarded to the John F. Shea Company, Inc., and was completed on January 4, 1954, at a total cost to the City of Boston of \$3,749.92, which represented 60 per cent of the total contract cost of \$6,249.86. The Town of Winthrop paid \$2,499.94, or 40 per cent as its share of the cost.

Everett Street Bridge—Redecking.

Under a contract awarded to the Martin J. Kelly Company, Inc., this work was commenced on March 15, 1954, and completed on May 28, 1954.

Because of the very poor condition of the existing wooden deck on this bridge, the bridge was closed to traffic, the entire old deck removed, and a new deck of heavier underplank and asphalt plank wearing surface installed, at a total cost to the city of \$30,732.11.

During this work the steel superstructure of the bridge, which is owned and maintained by the railroad company, was repaired by that company.

West Fourth Street Bridge—Constructing New Reinforced Concrete Deck on Spans 3, 4, and 5, and Repairing Sections of Spans 2 and 6.

As a result of the fire which destroyed three spans of this bridge, as referred to elsewhere in this report, the city negotiated a contract with C. J. Maney Company, Inc., for constructing a new reinforced concrete deck on the steelwork which was erected by the railroad company.

The work under the City of Boston contract commenced on February 15, 1954, and was completed on March 9, 1954, at a total cost to the city of \$43,000.

Making Emergency Repairs to the Drawspan of the Summer Street Bridge, Over Fort Point Channel.

As a result of the damage caused to the main girders and the track structure of the downstream drawspan of this bridge, it was necessary to negotiate an emergency contract for making the necessary repairs and putting the span back into operation.

Under a contract negotiated with the Crandall Engineering Company, work was started on March 29, 1954, and completed on May 7, 1954, at a total cost of \$23,000.

Renewing and Repairing Navigation Lights.

Under a contract awarded to the W. H. Hughes Electric Service, the navigation lights on the following bridges were repaired and put in good operating condition:

Charlestown Bridge, over Charles River.
Chelsea South Bridge, over Mystic River.
Chelsea Street Bridge, over Chelsea Creek.
Summer Street Bridge, over Fort Point Channel.
Northern Avenue Bridge, over Fort Point Channel.
Congress Street Bridge, over Fort Point Channel.

Work commenced May 10, 1954, and was completed May 17, 1954, at a total cost of \$1,432.

Removing Wearing Surface, Chelsea Bridge Viaduct.

In connection with the removal of the old Chelsea Viaduct connecting Chelsea South Drawbridge with the former Chelsea North Drawbridge, it was necessary for the city to award a contract for the removal of the roadway pavement on this structure. Such a contract was awarded to the Rufo Construction Company, Inc., who completed the work on June 9, 1954, at a cost of \$2,446. The main structure was removed by the railroad company, which owned the entire structure except for the pavement, which was maintained by the city.

Repairs to Malden Bridge, Over Mystic River.

A contract for repairing the steelwork of the Malden Bridge was awarded to the Martin J. Kelly Company, Inc., under which work started on March 8, 1954.

The work consisted of typical repairs to the steel floor system and decking of the drawspan and tower span.

As the work progressed, the very serious condition of the steel work, as referred to elsewhere in this report, necessitated amending the contract to permit much more extensive repairs; the total cost not to exceed \$68,000.

After closing the bridge to traffic in order to expedite the repair work, work was completed on June 22, 1954.

Steel Repairs, Malden Bridge, Over Mystic River.

Because of the necessity of making further repairs to the steelwork of this bridge a contract was awarded to Owen J. McGarrahan Company for completing such repairs as could not be accomplished under the previous contract, referred to above.

Work under this contract started on July 8, 1954, and was completed September 24, 1954, at a total cost of \$8,134.27.

Wash Borings, Summer Street Bridge, Over Reserved Channel.

In connection with the study being made as to the feasibility of constructing solid fill approaches at this bridge to replace the pile trestle construction, a contract was awarded to the Marine Diving and Ships Service Company for making wash borings along the site of the existing approaches.

This work was commenced on June 1, 1954, and completed on June 18, 1954, at a cost of \$1,622.55.

Repairs to Electric Wiring, Northern Avenue Bridge, Over Fort Point Channel.

Under a contract awarded in the amount of \$1,047.59 to the W. H. Hughes Electric Service, certain electrical wiring on this bridge pertaining to the operating controls and lighting facilities was repaired. Work started on June 24 and was completed on July 1.

Underwater Inspection, Malden Bridge.

In order to determine the extent of defective conditions of the masonry piers and pile trestle approaches of this bridge, a contract was awarded to Nick Tracy, diver, to make an underwater inspection of these structures and file a report. This work was commenced on June 1, 1954 and completed on July 1, 1954, at a total cost of \$2,786.52.

Making an Inspection of the Structural Steelwork of the Charlestown Bridge, Over Charles River.

Preparatory to drawing up plans and specifications for a major repair and redecking project at this bridge, a contract was awarded to the Carney Construction Company, Inc., to make a comprehensive inspection of the existing steelwork throughout the entire bridge. Work under this contract commenced June 7, 1954, and was completed August 31, 1954, at a total cost of \$4,795.

Underwater Inspection, Summer Street Bridge, Over Fort Point Channel.

A contract was awarded to Nick Tracy, diver, to make an underwater inspection of the masonry piers

and draw foundation of this bridge. Work commenced June 1, 1954, and was completed September 1, 1954, at a total cost of \$4,685.60.

Cleaning and Painting Two Highway Bridges and a Footbridge.

Under a contract awarded to H. Piken & Co., the Allston Bridge, over the Boston & Albany Railroad, the Charlesgate West Bridge, over Ipswich street, and the Gove Street Footbridge, were cleaned and painted at a total cost of \$6,800. The work began August 20, 1954, and was completed October 25, 1954.

Northern Avenue Bridge — Repairs.

Under a contract awarded to the Rev-Lyn Contracting Company, the entire drawspan of the Northern Avenue Bridge was stripped of the old decking; major repairs made to the main steelwork; and the draw re-decked with heavier underplank throughout and an asphalt plank wearing surface placed. The steelwork of the bridge was also cleaned and painted and the side roadways of the approach spans were resurfaced with bituminous concrete. The total cost of this work was \$137,261.35. Work began March 15, 1954, and was completed October 27, 1954.

Redecking the Southampton Street Bridge and the Cummins Highway Bridge, Over the New York, New Haven & Hartford Railroad.

A contract was awarded to Martin J. Kelly Company, Inc., for removing the old decking on these two bridges and replacing with new underplank throughout, and asphalt plank wearing surfaces. The main steelwork on both bridges, which are maintained by the railroad company, was repaired by said company. The work commenced September 7, 1954, and was completed November 10, 1954, at a total cost of \$23,943.15.

Masonry Repairs to Malden Bridge Piers and Abutments.

As a result of the findings made in the underwater inspection of this bridge, referred to hereinbefore, a contract was awarded to M. Solimando for repairing the masonry piers of this bridge by resetting the stones and pointing the joints. The major portion of the work

was confined to the landing pier for the drawspan. Work commenced December 7, 1954, and is expected to be completed early in January, 1955. The total estimated cost is \$5,000.

Roof Repairs to the Office and Storage Building, 8 Atkinson Street, Boston; the Charlestown Bridge Draw House, and the Northern Avenue Bridge Draw House.

Under a contract awarded to the John F. Shea Company, Inc., in the amount of \$2,030, the work of repairing the roofs of the above-named structures was commenced on October 18, 1954, and is expected to be completed early in 1955.

YARD FORCES.

Throughout the year the maintenance force of the Bridge Service made typical emergency and routine repairs to bridge roadway decking, sidewalks, fender piers, retractile bridge tracks, stairways, railings and pertinent facilities.

Other work included erecting and repairing barricades at snow dumps, dead end locations, painting of roadway gates, fences, machinery houses and barricades; removing and replacing counterweight elements on bascule bridges; and cleaning bridge sidewalks and stairways of ice and snow.

Minor repairs to the various mechanical and electrical facilities of the drawbridges were made by the maintenance mechanics and electrician.

WORK DONE FOR OTHER DIVISIONS BY THE BRIDGE DIVISION.

SANITARY DIVISION.

Repairs to the Albany Street Disposal Station.

Specifications were prepared by this division for making repairs to the above-named disposal station, and a contract was awarded to John F. Shea Company, Inc., under which work commenced on March 1, 1954, and was completed August 26, 1954, at a total cost of \$8,442.46. The work consisted of repairing defective

piles and bracing and the steel work pertinent to the dumping area of the station. Field engineering and inspection were furnished by this division.

Dredging at the Albany Street Disposal Station.

Under a contract awarded to the McKie Lighter Company for dredging the slip and adjacent channel area of the Albany Street Disposal Station, work started July 20, 1954, and was completed July 26, 1954, at a total cost of \$1,984.67. The Bridge Division drew up the specifications and furnished the supervision for this work.

Repairs to the Waling and Cross Bracing of the Fort Hill Disposal Station.

Under the specifications drawn up by this division, a contract was awarded to the W. H. Ellis & Son Company for making repairs to the pile work and fenders at the slips of the above-named station. Work began November 15, 1954, and was completed December 9, 1954, at a total cost of \$2,439.55. Field supervision was furnished by this division.

Repairs to Wharf at Spectacle Island, Boston Harbor.

In order to make necessary repairs to the wharf structure at Spectacle Island, where the disposal scows are tied up during unloading, a contract was awarded to the Rev-Lyn Contracting Company, under which work started December 7, 1954, and was completed December 19, 1954, at a total cost of \$8,004.73. This division drew up the specifications and furnished field supervision.

II. SUMNER TUNNEL.

The Sumner Tunnel has just completed its most successful year since it was opened in 1934. The total traffic for the past year 1954 was 11,080,966 vehicles, which was an increase of 245,292 over 1953. The total revenue was \$2,222,700.80. The record highest single day traffic for a 24-hour period was 35,800 vehicles on June 18, 1954; and the record highest hour ever recorded happened on May 12, 1954, between the hours of 4 p.m. and 5 p.m., when 2,692 cars passed through the tunnel.

Upon the opening of the Central Artery between the Boston end of the tunnel and the Mystic Bridge and

Storrow Drive connection, the flow of traffic through the tunnel to Boston has been expedited and should in time permit even a greater increase in the volume of traffic through the tunnel.

The tunnel plant, in general, is in good operating condition. Some anticipated repairs have been planned for the Boston ventilation building, the power transformer platforms, and also to the invert of the tunnel fresh air duct. Repairs have been made to granite block roadway pavement during the past year, and further repairs will be made during the year 1955.

All electrical and mechanical equipment throughout the plant is in very good condition, including all power transformers, circuit breakers, relays, motors, fans, telephones, and toll equipment. All equipment is under a daily routine inspection, and any required repairs or adjustments are made as needed.

CONTRACTS AWARDED IN 1954.

1. Granite Block Roadway Repairs in Tunnel.

During the past year, repairs were made to the tunnel roadway under a contract with D. Rufo Company, whereby 1,499 yards of granite block were removed and relaid at a cost of \$20,595.91. This work started on April 20, 1954, and was completed on June 5, 1954.

2. Cleaning Fresh Air, and Exhaust Air Ducts, and Exhaust Fan Rooms in Ventilation Buildings.

Every year the exhaust air duct and the exhaust fan rooms are cleaned, and all dust accumulations are removed from these areas. The fresh air duct is cleaned every other year. This arrangement insures a very efficient operating ventilation system. The 1954 contract for this work was awarded to the L. M. Mercer & Sons Co. The work started October 12, 1954 and completed December 20, 1954. Total cost, \$2,395.

3. Cleaning the Surface Drainage System.

After the winter season, there is always a large accumulation of sand, dirt, etc., carried into the tunnel by vehicles, which falls on the plazas and roadway, and finds its way into the surface drainage system, and which is removed annually under contract. The contract for the year 1954 was awarded to the Albany Contracting

Company, at a cost of \$1,631, Work commenced December 2, 1954. Work completed December 15, 1954.

4. *Waterproofing Exterior Walls and Installing a New Tar and Gravel Roof at the East Boston Ventilation Building of the Sumner Tunnel.*

The porous condition of the masonry of this building has required that the exterior walls be pointed and waterproofed; and the installing of a new tar and gravel roof, with new bents and flashings, etc. The contract for this work was awarded to the Patrick Ross Company at a bid price of \$6,592.50.

The work was commenced on April 15, 1954, and completed on December 21, 1954.

5. *Installing A New Lighting System in Exhaust Air Duct of the Sumner Tunnel.*

A permanent lighting system has been installed in the exhaust air duct of the tunnel. This new lighting system will facilitate working in this area for the inspection and cleaning of this duct. The contract was awarded to John J. Finn Company at a bid price of \$2,746.

The work was commenced on February 8, 1954, and completed on February 19, 1954.

To insure the efficient operation of the drainage and pumping system of the tunnel it is necessary to remove all mud, sand, etc., from the 72 drop inlets, 2 sand traps, and the 6-inch connecting pipe. This work was performed under a service order issued after receiving invitation bids, by Arthur H. Collins, at a cost of \$660.

Work was commenced on May 19, 1954, and completed June 19, 1954.

1954 BUDGET SUMMARY.

CREDITS:

Regular appropriation, 1954	\$553,765 00
Balance from previous year	16,591 87
Pensions	35,733 76
Total credits	<u>\$606,090 63</u>

DEBITS:

Expenditures, 1954	\$559,393 31
Balance to next year	3,925 18
Pensions	35,733 76
Total debits	<u>\$599,052 25</u>

Unexpended balance, December 31, 1954 \$7,038 38

SUMMARY OF 1954 TRAFFIC BY CLASSIFICATION.

Class.	Toll.	DESCRIPTION.	No. of Vehicles.
1.	\$0 20	Truck not in excess of 2 tons capacity.	
		Tractor without trailer	472,100
2.	0 20	Passenger car	10,323,991
3.	0 20	Motorcycle	3,346
4.	0 25	Truck over 2 tons and up to 5 tons capacity.	
		Tractor with trailer over 2 tons and up to 5 tons capacity	58,014
5.	0 20	Passenger car with trailer	15,167
6.	0 35	Truck over 5 tons and up to 10 tons capacity	
		Tractor with trailer over 5 tons and up to 10 tons capacity	17,349
7.	0 20	Tractor with trailer not in excess of 2 tons capacity	2,972
8.	1 00	Truck over 10 tons capacity	4,516
9.	0 35	Bus with or without passengers	1,405
*City Owned		. . . . .	<u>†182,106</u>
Total traffic		. . . . .	11,080,966

* M.T.A. and Eastern Massachusetts Railway buses included in this classification.

† 6,531 M.T.A. and 83,372 Eastern Massachusetts Railway buses at 35 cents included in this total.

**COMPARATIVE 5-YEAR SUMMARY OF OPERATION, FROM
1950 TO 1954, INCLUSIVE.**

	1950	1951	1952	1953	1954
Vehicular Traffic:					
Total number vehicles.	9,283,700	9,466,660	9,583,972	10,835,674	11,080,9
Monthly average.	773,641	788,883	798,664	902,973	923,4
Weekly average.	178,045	182,051	184,307	208,378	212,5
Daily average.	25,435	25,936	26,186	29,686	30,3
Power Consumption:					
Total kilowatts.	4,331,103	4,196,904	4,582,488	4,966,604	4,527,3
Financial Results:					
Operating expenditure.	\$462,975 30	\$479,198 19	\$541,705 30	\$591,327 09	\$595,127
Balance to next year.	11,547 11	13,135 89	24,679 45	16,591 87	3,925
Interest requirements.	832,453 75	763,654 61	683,105 13	687,494 39	740,213
Refunded tolls.	92 20	721 95	65 25	440 60	122
Total Expenses.	\$1,297,068 36	\$1,256,710 64	\$1,249,555 13	\$1,295,853 95	\$1,339,388
Receipts.	\$1,863,035 00	\$1,913,356 12	\$1,932,619 83	\$2,172,410 00	\$2,224,195
Balance from previous year.	—	1,547 11	13,135 89	24,679 45	16,591
Total Receipts.	\$1,863,035 00	\$1,914,903 23	\$1,945,755 72	\$2,197,089 45	\$2,240,786
Net Result.	\$565,966 64 (Excess)	\$658,192 59 (Excess)	\$696,200 59 (Excess)	\$901,235 50 (Excess)	\$901,398 (Excess)

APPENDIX C.

REPORT OF THE DIVISION ENGINEER OF
THE HIGHWAY DIVISION.

BOSTON, January 3, 1955.

To the Commissioner of Public Works.

DEAR SIR:

The following report of the income, expenditures, and operation of the Highway Division of the Public Works Department is hereby submitted for the year ending December 31, 1954.

Respectfully submitted,

RUTHFORD J. KELLEY,
Division Engineer, Highway Division.

HIGHWAY DIVISION.

PAVING SERVICE.

SUMMARY OF BUDGET APPROPRIATIONS.

APPROPRIATION.	Total Credits.	Expenditures.	Balance Unexpended.
Paving Service.	\$1,382,138 29	\$1,381,887 79	\$250 50
Reconstruction of Streets.	100,123 66	42,994 45	57,129 21
Public Ways, Construc- tion of (Revenue). . . .	157,000 00	147,856 56	9,143 44
Public Ways, Construc- tion of (Non-Reve- nue).	3,788,345 90	2,081,107 46	1,707,238 44
Sidewalks, Construction and Reconstruction of	130,397 21	89,973 07	40,424 14
Street Signs.	22,634 27	21,199 99	1,434 28
Snow Removal.	529,423 73	471,591 97	57,831 76

In the Permit Office, \$80,321.05 was taken in; of this amount \$19,399.30 was deposited with the City Collector for permit fees received, \$57,370 was deposited with the City Collector for the Street Openings Account, and \$3,551.75 was billed to the Public Service Corporations.

Under classes No. 1 and No. 2 of the schedule of permit fees, permits were issued for openings in public ways as follows:

City Departments	1,541
Public Service Corporations (Class 1)	1,855
Public Service Corporations (Class 2)	2,096
Public Service Corporations (Class 3)	3
Public Service Corporations (Class 9)	12
	<hr/> 5,507

Under classes No. 1 to No. 9 of the schedule of permit fees, permits were issued for openings and occupation in public ways as follows:

Class 1.	Permits for street openings	943	
Class 3.	Occupation permits for painting, repairs to buildings, etc.	2,251	
Class 5.	Erecting and repairing awnings	32	
Class 7.	Erecting and repairing signs	167	
Class 8.	Raising and lowering machinery	59	
Class 9.	Special permits	684	
			<hr/>
			4,136
			<hr/>
	Total permits issued		9,643

There are now on file 2,238 bonds protecting the City of Boston against claims that may be made on account of permits issued.

In September of 1953, we initiated a policy of requiring a deposit from applicants for new water services, an amount sufficient to guarantee the cost of restoration of pavements and sidewalks which had not been done previously. During 1954 we took in almost \$50,000 on water openings, and increased substantially the amount taken in, in drain deposits. All old deposits from 1946 to 1953 were completed by effecting the necessary repairs and refunding any balance due to the depositors. Also, during 1954, we checked all outstanding corporation cuts, and have readied for the patch-paving contractors the orders to repair said cuts.

With the completion of this work, all the records and work of the Permit Section, outstanding in previous administrations, have been taken care of. We have been successful in requiring the repairs of many thousands of dollars worth of sidewalks broken by builders and others, and bonding companies have been forced to make some of these repairs. The Permit and Encroachment Section of the Highway Division are operating on a self-supporting basis, and making a substantial return to the treasury of the City of Boston.

The regular forces of the Paving Service were employed as usual in the maintenance of public streets, resurfacing and patching macadam pavements, patching permanent pavements, such as asphalt and granite block, and maintaining gravel, brick, and artificial stone sidewalks.

In the snow removal season, division forces were employed in spreading rock salt and sand on icy streets and also supervised plowing work throughout the city by 250 contractors' hired plows after snowstorms.

All snow removal bills for plowing, hauling, force account work, cubic yard removal, etc., were processed through the Paving Service office.

The following work was done in placing new street signs and replacing and repairing existing street signs:

674	4-inch street sign posts erected	
21	new hero square signs for dedication erected	
99	hero square signs replaced	
983	new street signs installed	
334	old hand-painted street signs, damaged baked enameled signs, and obliterated signs removed	
211	bent or broken street sign posts (4-inch type) repaired and straightened	
170	street sign frames, collars, and brackets on 4-inch street sign posts and light poles repaired	
191	pieces of old rope, wire, old tires, etc., from 4-inch street posts and light poles removed	
797	frames	} installed on 4-inch street sign posts and light poles
502	collars	
106	adapters	
407	4-inch acorns on 4-inch street sign posts installed	
217	"Private Way" signs on 4-inch posts and light poles installed	
47	"Private Way" signs from 4-inch posts and light poles removed because of making public ways	
1,006	4-inch sign posts painted	
1,800	street sign frames painted	
756	4-inch acorns on 4-inch posts painted	
954	street sign collars on street sign posts and light poles painted	
21	directional signs on 4-inch posts installed	
856	street sign plates washed and cleaned	
314	blanks for temporary name plates painted	

Contracts were awarded for the construction and reconstruction of 152 streets during the year and 98 of these streets were completed. Work was also completed on 59 streets which were unfinished from 1953. Contracts were awarded for the construction of artificial stone sidewalks in 19 streets and 17 of these were completed. Sidewalk work was also completed on 9 streets which were unfinished from 1953.

Some of the more important thoroughfares on which reconstruction work was completed in 1954 are as follows:

Bremen street, East Boston, from Sumner street to Porter street.

Meridian street, East Boston, from Saratoga street to Condor street, including William C. Kelly Square and Harry A. Keyes Square

Waldemar avenue, East Boston, from William F. McClellan Highway to Crestway road.

Otis street, City Proper, from Winthrop square to Summer street.

Columbia road, South Boston, from Old Harbor street to I street.

Columbus avenue, at Roxbury Crossing, from Station street to Roxbury street.

Mt. Vernon street, Dorchester, from William T. Morrissey Boulevard to 3,300 feet easterly.

Gallivan Boulevard, Dorchester, from Adams street to Kenmare road.

Poplar street, West Roxbury, from Canterbury street to Beech street.

Poplar street, West Roxbury, from Washington street to Heathcote street.

Poplar street, West Roxbury, from Canterbury street to Heathcote street.

Moss Hill road, West Roxbury, from Woodland road to 1,000 feet southerly.

Weld street, West Roxbury, from Centre street to West Roxbury Parkway, and Church street to Maple street.

Chestnut Hill avenue, Brighton, from Washington street to Brookline line.

Washington street, City Proper, from Dover street to Northampton street.

Hyde Park avenue, Hyde Park, from Pingree street to Metropolitan avenue.

Morton street, West Roxbury and Dorchester, from Harvard street to Cemetery road.

The following is a list of streets constructed and reconstructed and sidewalk work done by contract in the various wards of the city in the year 1954:

WARD 1 — Ashley street, Orient avenue, Bremen street, Meridian street, Brigham street, and Waldemar avenue. Total cost, \$160,693.40.

WARD 2 — Rutherford avenue (sidewalks). Total cost, \$3,915.42.

WARD 3 — Bond street (sidewalks), Irving street, South Russell street, Temple street, Washington street (at Boylston street), Washington street (La Grange street to Boylston square) (sidewalks), Otis street, and Washington street (Dover street to Northampton street) (chapter 90). Total cost, \$75,476.66.

WARD 4 — Forsyth street (sidewalks), Huntington avenue (southerly side, Opera place to Forsyth street) (sidewalks),

Tetlow street (sidewalks), Worthington street (sidewalks), Parker street (sidewalks), and Hemenway street (sidewalks). Total cost, \$23,880.96.

WARD 5 — Garden street, Irving street, and Revere street. Total cost, \$9,256.85.

WARD 6 — West Fourth street, East Fifth street, Silver street, Emerson street (sidewalks), West Seventh street (sidewalks), West Sixth street (sidewalks), E street (sidewalks), and P street (sidewalks). Total cost, \$21,539.86.

WARD 7 — Southampton street (seeded rails), Bowen street, Brewster street, Columbia road, Covington street, Dixfield street, Douglas street, East Seventh street, Gold street, Hamlen street, Knowlton street, Springer street, Story street, Telegraph street, Thomas park, Tudor street, West Fourth street, East Fifth street, Sumner park, and Vinton street (sidewalks). Total cost, \$43,159.58.

WARD 8 — Allerton street, Pierson street, Southampton street (seeded rails), Washington street (seeded rails), James street, Washington street (chapter 90), Island street, Perch street, and Pike street. Total cost, \$109,000.07.

WARD 9 — Washington street (seeded rails), Columbus avenue (Roxbury Crossing), Parker street (sidewalks), and Washington street (chapter 90). Total cost, \$79,724.85.

WARD 10 — None.

WARD 11 — Mendell Way, Hampstead road, St. Rose street, and Verona street. Total cost, \$32,904.92.

WARD 12 — None.

WARD 13 — Hartford court, Southview street, Mt. Vernon street (Wm. T. Morrissey Boulevard to 3,250 feet easterly), and Mt. Vernon street (700 feet east of Wm. T. Morrissey Boulevard to 3,100 feet east of Wm. T. Morrissey Boulevard). Total cost, \$89,578.79.

WARD 14 — Franklin Hill avenue. Total cost, \$20,950.53.

WARD 15 — Adams street (east to Park street) (sidewalks), Leonard street (sidewalks). Total cost, \$1,400.

WARD 16 — Adams street (East to Park street) (sidewalks), Auriga street (sidewalks), North Munroe terrace (sidewalks), South Munroe terrace (sidewalks), Templeton street (sidewalks), Wrentham street (sidewalks), Dorchester avenue (Carney Hospital) (sidewalks), Gallivan Boulevard (sidewalk and traffic islands), Peabody square (sidewalk and traffic island), and Centre court. Total cost, \$48,177.66.

WARD 17 — Tonawanda street (sidewalks), and Dorchester avenue (sidewalks). Total cost, \$19,543.79.

WARD 18 — Badger road, Cranmore road, Halsey road, Van Brunt street, Andria road, George street, Lockland road, Solaris road, Highfield road, Edgewater Drive (sidewalks), Austin street, Beech street, Beram avenue, Bateman street, Deforest street, Grassmere road, Hallron street, MacDonald street, Wilton street, Mulvey street, Metropolitan avenue, Westminster street, Dana avenue, Neponset

avenue, Milton avenue, Poplar street (Canterbury street to Beech street), Summit street, Hyde Park avenue (chapter 90), Poplar street (Canterbury street to Heathcote street), Glendower road, and Morton street (chapter 90). Total cost, \$623,166.09.

WARD 19 — Elwell road, Furnival road, Asticou road, Avon street, Brookdale street, Goldsmith street, Hopkins road, Ridge street, Woodland road, Wachusett street, Moss Hill road, Poplar street, Rockwood street, Bussey street, Chestnut square, Glenvale terrace, Delford street, Pitsmoor road, Quarley road, Wyvern street, Prince street, Poplar street (Canterbury street to Beech street), Allandale street (chapter 90), Moss Hill road, Poplar street (Canterbury street to Heathcote street). Total cost, \$227,824.69.

WARD 20 — Alberta street, Latin road, Alward road, Lantern Lane, Andover road, Ledgeale road, Parklawn road, President road, Wedgewood road, Eugenia road, Ansonia road, Manthorne road, South Fairview street, South Walter street, Beryl street, Coniston road, Cornell street, Newburg street, Selwyn street, Zeller street, Billing street, Gould street, Hemlock road, Bonad road (sidewalks), Washington street, Buchanan road, Quinn Way, Quinn Way Extension, Fernwood road, Oakmere street, Weld street (Walter street to Centre street), Allandale street (chapter 90), Church street, Weld street (Centre street to West Roxbury Parkway, and Church street to Maple street). Total cost, \$440,542.41.

WARD 21 — Beacon street (sidewalks) and Chestnut Hill avenue (chapter 90). Total cost, \$146,393.15.

WARD 22 — Empire street, Mayflower street, Dunboy street, Hatherly road, Mt. Vernon street, Shannon street, Windom street, Guest street, Ryder Hill road, and Presentation road. Total cost, \$95,075.23.

PAVING SERVICE.

WORK DONE BY CONTRACT IN 1954.

ITEM.	Quantity.	Unit.
Earth and services excavation	85,311	cubic yards.
Rock and wall excavation	1,680	cubic yards.
Bank gravel	78,323	tons.
Crushed stone for edgestone	4,198	tons
Existing base removed	4,783	square yards.
Existing pavement removed	27,819	square yards.
New straight edgestone	50,265	linear feet.
New circular edgestone	5,896	linear feet.
New 2-foot corners	1,215	each.
Edgestone reset	35,869	linear feet.
Edgestone hauled to city yards	6,389	linear feet.
Macadam base	26,560	tons.
OA asphalt	238,299	gallons.
Concrete base	2,029	cubic yards.

ITEM	Quantity.	Unit.
Concrete backing up sidewalks	20 tons.	
Bituminous concrete base (roadway)	25,797 tons.	
Bituminous concrete top (roadway)	23,518 tons.	
Bituminous concrete base (sidewalk)	1,430 tons.	
Bituminous concrete top (sidewalks)	2,248 tons.	
Sheet asphalt top	820 tons.	
Artificial stone sidewalks	716,181 square feet.	
Artificial stone driveways	62,366 square feet.	
Loam spaces	1,284 square yards.	
Loam back of sidewalks	622 cubic yards.	
Covers reset	2,229 each.	
Bradley heads reset	13 each.	
Brick courses	3,712 each.	
Catch basins or manholes rebuilt	83 each.	
Catch basins or drop inlets built	48 each.	
Sign posts set or reset	171 each.	
Parking meters reset	41 each.	
Stone bounds	248 each.	

YEARLY REPORT OF WORK DONE BY DEPARTMENT FORCES FOR 1954

Brick sidewalks, laid and relaid	3,553 square yards.
Gravel sidewalks, relaid	2,153 square yards.
Artificial stone sidewalks, laid (new)	13,263 square feet.
Artificial stone sidewalks, relaid (old)	133,898 square feet.
Bituminous concrete sidewalks	11,442 square yards.
Granite block roadway, laid	158 square yards.
Artificial stone sidewalks, patched with blacktop	16,224 square feet.
Edgestone reset (old)	3,858 linear feet.
Macadam roadway patched	78,982 square yards.
Macadam roadway resurfaced	5,221 square yards.
Asphalt or bituminous concrete roadway patched	27,107 square yards.
Asphalt or bituminous concrete roadway resurfaced	1,875 square yards.
Street cleaning	10,158 cubic yards.
Snow removal	46,635 cubic yards.

PAVING SERVICE, 1954.

Street Cleaning	\$39,527 56
General Highway Expenditures	911,753 37
Sidewalk and Curbing	335,594 36
Snow and Ice Removal	79,342 75
Street Signs	15,669 75

\$1,381,887 79

TABLE SHOWING LENGTH AND AREA OF PAVING ON ACCEPTED STREETS, CORRECTED TO JANUARY 1, 1955.

LENGTH IN MILES.												AREA IN SQUARE YARDS.											
	Sheet Asphalt.	Asphalt Concrete.	Granite Block.	Wood Block.	Plank on Bridges.	Brick.	Con- crete.	Macadam.	Gravel.	Not Graded.	Totals.	Sheet Asphalt.	Asphalt Concrete.	Granite Block.	Wood Block.	Plank on Bridges.	Brick.	Concrete.	Macadam.	Gravel.	Not Graded.	Totals.	
Year 1953 Report.....	* 245.05	† 276.80	‡ 34.43	0.24	0.44	0.50	\$22.41	|| 142.97	12.45	1.39	736.68	* 4,941,744	† 5,323,586	‡ 887,041	5,367	11,264	8,855	§ 446,233	|| 2,325,828	186,599	51,731	14,188,248	
Per Cent.....	33.27	37.57	4.67	0.03	0.06	0.07	3.04	19.41	1.69	0.19	100.00	34.83	37.52	6.25	0.04	0.08	0.06	3.15	16.39	1.32	0.36	100.00	
JANUARY 1, 1955.																							
City Proper.....	50.88	28.30	10.58	0.07	0.10	0.32	3.00	2.74	0.30	.....	96.29	1,122,704	646,232	218,572	487	3,623	4,398	96,224	42,185	1,957	.....	2,136,382
Charlestown.....	4.92	5.05	6.10	0.08	0.05	.....	0.79	5.42	0.61	0.01	23.03	97,833	86,107	159,670	2,011	1,701	.....	13,360	75,302	13,999	41	450,024
East Boston.....	4.91	19.15	3.54	0.01	0.02	0.02	1.37	9.14	0.15	0.04	38.35	111,955	439,643	72,583	325	355	393	46,852	198,280	2,976	812	874,174	
South Boston.....	12.36	15.78	7.35	0.01	0.06	0.02	0.42	7.43	0.18	0.50	44.11	266,336	295,410	210,899	642	2,784	349	20,818	125,760	2,111	15,754	940,863	
Roxbury.....	42.98	29.69	3.29	.....	.....	0.14	5.08	13.05	0.38	0.00	94.61	858,652	543,621	65,657	47	.....	2,541	78,244	209,595	4,872	27	1,763,256
West Roxbury.....	39.01	74.65	1.21	.....	0.04	.....	4.44	33.11	1.20	0.00	153.66	704,285	1,364,343	44,773	.....	983	.....	60,900	330,697	18,132	5,390	2,729,503
Dorchester.....	57.93	70.33	0.53	0.03	0.01	0.01	5.45	36.76	1.21	0.61	172.90	1,100,989	1,297,041	28,921	364	985	145	87,155	569,958	17,675	24,477	3,127,710	
Brighton.....	21.13	30.88	0.42	.....	0.08	.....	1.23	11.70	0.27	.....	65.71	466,592	602,192	27,291	.....	1,231	.....	30,443	187,347	4,263	50	1,319,409
Hyde Park.....	8.50	18.97	0.00	0.01	0.03	.....	0.64	16.75	4.24	0.20	49.34	149,716	380,978	45	186	442	.....	10,086	273,406	67,870	4,506	887,235
Total.....	242.62	292.80	33.02	0.21	0.42	0.51	22.42	136.10	8.54	1.36	738.00	4,879,062	5,655,567	828,411	4,062	12,104	7,826	444,082	2,212,530	133,855	51,057	14,228,556	
Per Cent.....	32.88	39.67	4.47	0.03	0.06	0.07	3.04	18.44	1.16	0.18	100.00	34.29	39.75	5.82	0.03	0.09	0.05	3.12	15.55	0.94	0.36	100.00	

TOTAL PUBLIC STREETS 738.00 MILES.

NOTE.— In the above table the city is subdivided substantially on the boundary lines between the districts as they existed when annexed to Boston. Territory annexed from Brookline included in City Proper.

* Of this amount 0.99 mile or 810 square yards is Bitulithic.

† Of this amount 0.02 mile or 185 square yards is cobble; and 19.89 miles or 611,297 square yards is granite block paving on concrete base.

‡ Of this amount 0.06 mile or 405 square yards is Blome granitoid concrete block.

§ Of this amount 119.01 miles or 1,955,245 square yards is bituminous macadam.

|| Of this amount 69.72 miles or 1,353,061 square yards is bitulithic; and 2.78 miles or 44,834 square yards is Topeka; and 0.06 mile or 920 square yards is Filbertine; and 0.11 mile or 1,533 square yards is Simasco; and 0.03 mile or 595 square yards is Carey Elastite Asphalt Plank; and 0.06 mile or 518 square yards is Johns-Manville Asphalt Plank; and 0.15 mile or 818 square yards is Asphalt Block; and 1.61 miles or 50,590 square yards is Tar Concrete.

6.72 miles or 37,031 square yards public alleys included in this table; 7.51 miles or 334,080 square yards public streets in charge of Park Department included in this table; 9.79 miles or 323,514 square yards public streets in charge of Commonwealth of Massachusetts included in this table. In addition to this table there are 2.38 miles or 11,566 square yards of accepted footways.

LIGHTING SERVICE.

Financial Statement.

Total credits for 1954	\$1,341,372 80
Total expenditures for 1954	1,343,672 70

Deficit	<u>\$1,299 90</u>
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Individual Expenditures.

Street and Park Lighting (Electric):

Boston Edison Com- pany	\$1,134,060 86	
Boston Consolidated Gas Company (Char- lestown district)	50,489 08	
Boston Edison Com- pany (footways)	1,612 03	
	<u> </u>	\$1,186,161 97

Street Lighting (Gas):

Boston Consolidated Gas Company	\$51,169 46	
American Service Com- pany	76,035 99	
	<u> </u>	127,205 45

Construction:

Boston Consolidated Gas Company	\$4,619 17	
Boston Edison Com- pany (Installation, re- moval, relocation and modernization)	7,512 00	
	<u> </u>	12,131 17

Salaries:

Administrative and En- gineering Personnel	\$15,912 80	15,912 80
Office supplies	\$340 60	
	<u> </u>	340 60
Office furniture	\$294 43	
	<u> </u>	294 43

Electrical maintenance
and replacement parts

\$1,621 98	
<u> </u>	1,621 98

Transportation of per-
sonnel

\$4 30	
<u> </u>	4 30

Total	<u>\$1,343,672 70</u>
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The following is a statement of work done by the Lighting Service of the Highway Division of the Public Works Department during the year 1954:

Mercury Vapor Lighting Projects.

In 1954 the following listed streets, main thoroughfares, and business areas were relighted with new modern mercury vapor lighting:

	Units.	Lumen each.
Chestnut Hill avenue, Brighton	41	15,000
From Beacon street to Washington street.		
Washington street, Boston,	49	15,000
From Dover street to Northampton street	4	10,000
Fields Corner Shopping area, Dorchester . .	18	15,000
Dorchester avenue, from Adams street to		
Gibson street	2	10,000
Peabody square, Dorchester	8	15,000
Intersection of Adams street and Gallivan		
Boulevard, Dorchester	9	15,000
Haverhill street, Boston	6	15,000
Conjunction with construction of Central Artery.		
Traverse street, Boston	2	15,000
Conjunction with construction of Central Artery.		
Cross street, Boston	3	15,000
Conjunction with construction of Central Artery.		
Beacon street, Boston	5	15,000
From Massachusetts avenue to Hereford street.		
Bowdoin street, Dorchester	5	10,000
Empire street, Brighton	1	10,000
Hyde Park avenue, Hyde Park	3	15,000
North street, Boston	5	15,000
Conjunction with construction of Central Artery.		
Washington Street North, Boston ("Twin") .	2	15,000
Washington street, Boston	49	15,000
Washington street, Boston	4	10,000
Market street, Brighton	5	15,000

These new lighting units replaced obsolete and inadequate lamps in many places, were favorably received by the business areas and reduced existing hazards at dangerous intersections, along with providing greater safety for vehicular and pedestrian traffic along main thoroughfares.

Incandescent Lighting Projects.

These new installations and replacements of old lighting with units of larger candle power gave entirely adequate lighting to the several bridges and greatly reduced vandalism in the parks.

	Units.	Lumen each.
Morton street, Dorchester	37 twin 2 single	2,500 2,500
Columbia Point Housing Development, South Boston	46 single	2,500
Mt. Vernon street, Dorchester	16 twin 6 single	6,000 10,000
Dover street, West First Street Bridge, South Boston	5 single	10,000
Broadway Bridge, South Boston	10 single	10,000
McArdle Bridge, East Boston	13 single	6,000
Northern Avenue Bridge, Boston	12 single	2,500
Columbia road, South Boston	16 single	2,500
From I street to Farragut street.		
Madison park, Roxbury	6 single	2,500
Washington park, Roxbury	12 single	1,000

Incandescent Lamps.

The following listed streets were given more lighting by the installation of 10,000 lumen incandescent lamps, these include intersections, various business districts, and main thoroughfares in the city:

Adams street, Dorchester (1); Ash street, Boston (1); Congress street, Boston (2); Cross street, at Endicott street, Boston (1); Centre street, at Albert street, Roxbury (1); Dorchester avenue, Richmond street to Adams street, Dorchester (2); East Fourth street, South Boston (1); Freeport street, Dorchester (1); Hill Top street, Dorchester (1); Hyde Park avenue, Hyde Park (1); Milk street, Boston (2); North street, at John street, Boston (1); North Washington street, Boston (1); New Way, Dorchester (2); Pearl street, Boston (2); Purchase street, Boston (1); Northern avenue, Boston (5).

Incandescent electric lamps of 6,000 lumens were installed on the following streets:

Mason street, Boston (1); North Harvard street, Brighton (1).

Electric lamps of 4,000 lumens incandescent were installed during 1954 on the following streets:

Deaconess road, Roxbury (2); Eldon street, Roxbury (1); Fenway, Roxbury (2); Joslin road, Roxbury (2); James street, Boston (2); Maple street, West Roxbury (1); Oak street, Hyde Park (2); Paris street, East Boston (4); P street, South Boston (2); Parker street, Roxbury (1); Richmond street, Boston (2); Sidlaw road, Brighton (1); Heath street, Roxbury (4).

Electric lighting units of 2,500 lumens were installed on newly accepted streets and as additional lighting where obsolete lamps were insufficient and inadequate to produce the desired lighting:

Allerton street, Roxbury (6); Arvale road, Dorchester (1); Academy Hill road, Brighton (1); Acton street, Boston (1); Agassiz park, West Roxbury (1); Aldrich street, West Roxbury (1); Adams street, Dorchester (1); Arlington street, Brighton (8); A street, South Boston (2); Benton street, Dorchester (2); Bynner street, West Roxbury (1); Bodwell street, Dorchester (1); Bird street, Dorchester (1); Bond street, Boston (1); Bickford street, Roxbury (8); Beram avenue, West Roxbury (2); Bowdoin avenue, Dorchester (7); Bentley street, Brighton (1); Calder street, Dorchester (3); Circuit street, Roxbury (2); Columbia road, South Boston (3); Clifford street, Hyde Park (1); Clifford street, Roxbury (1); Carleton street, Boston (5); Canterbury street, West Roxbury (7); Cemetery road, Dorchester (1); Cornauba street, West Roxbury (2); Dove street, Roxbury (1); Deering road, Dorchester (5); Everett street, Brighton (8); East Second street, South Boston (2); Field street, Roxbury (1); Fairbanks street, Brighton (1); Frankfort street, East Boston (4); Favre street, Dorchester (1); Franklin Street Tunnel, Brighton (1); Gladstone Steps, East Boston (1); Garden terrace, West Roxbury (1); Hallet street, Dorchester (1); Heath street, Roxbury (1); Hyde Park avenue, Hyde Park (1); Highland street, Roxbury (1); Johnny court, Boston (1); Lamartine street, Roxbury (1); Lake street, Brighton (1); Leicester street, Brighton (3); May street, West Roxbury (1); Messinger street, Dorchester (1); McBride street, West Roxbury (2); Morton street, West Roxbury (6); Maple street, West Roxbury (13); Pierson street, Roxbury (2); Prince street, West Roxbury (3); Rusfield street, Roxbury (2); Radford Lane, Dorchester (2); Sumner park, Dorchester (1); South Fairview street, West Roxbury (2); Sigourney street, West Roxbury (5); St. William street, Dorchester (2); Telegraph street, South Boston (1); Vose avenue, Hyde Park (2); Vesta road, Dorchester, (3); William Jackson Way, Brighton (2); Wrentham street, Dorchester (3); Whittemore terrace, Dorchester (1); Walnut avenue, West Roxbury (10);

Whitfield street, Dorchester (1); Willard street, Boston (1); Washburn street, South Boston (3); Whittier street, Roxbury (1); Whitmore street, Boston (1).

Electric lamps of 1,000 lumen incandescent were installed on the following secondary streets providing more adequate lighting for the many residential sections of the city:

Ayles road, Hyde Park (5); Alwin street, Hyde Park (3); Alwin court, Hyde Park (3); Bowditch Road Extension, West Roxbury (3); Billings street, West Roxbury (3); Brown Avenue Footway, West Roxbury (1); Bills court, Roxbury (1); Beaver street, Hyde Park (1); Brown terrace, West Roxbury (1); Ballou place, Dorchester (1); Bartlett avenue, West Roxbury (1); Byrd avenue, Hyde Park (2); Belnel road, Hyde Park (1); Corinth street, West Roxbury (3); Cerina road, West Roxbury (1); Clifford street, Hyde Park (1); Cheryl Lane, Hyde Park (3); Dresser street, South Boston (4); DeStefano road, West Roxbury (3); Dietz road, Hyde Park (3); Delaware place, Brighton (1); Edwardson street, Hyde Park (1); Estrella street, West Roxbury (1); Franklin court, Dorchester (1); Furbush road, West Roxbury (2); Ferndale avenue, Dorchester (1); Glenvale terrace, West Roxbury (1); Haskell street, Brighton (1); Hill street, Boston (1); Robeson street, West Roxbury (1); Rose Garden Circle, Brighton (1); Robinwood avenue, West Roxbury (6); Southwick street, Dorchester (2); Spring Valley road, West Roxbury (1); Vallaro road, Hyde Park (2); Vose avenue, Hyde Park (2); Kilsyth road, Brighton (1); Lewiston street, Hyde Park (3); Lockland road (Hyde Park (3); Montfern avenue, Brighton (1); Norton street, Hyde Park (2); Orchardhill road, West Roxbury (1); Pine Grove terrace, Roxbury (1); Providence street, Hyde Park (1); Whipple avenue, Hyde Park (2); Westchester road, West Roxbury (1).

Gas Lamp Replacement Program.

During the year approximately 270 obsolete gas lamps were replaced with approximately 300 new modern luminaires with 2,500 lumen lamps. These new lamps in most instances are installed on long arms to diminish interference with trees and to eliminate glare from homes on residential streets. Plans calling for the replacement of an additional 330 gas lamps with electric lamps were delayed, due to the heavy work load imposed on the utility companies by the two disastrous hurricanes.

APPENDIX D.

REPORT OF THE DIVISION ENGINEER OF
THE SANITARY DIVISION.

BOSTON, January 3, 1955.

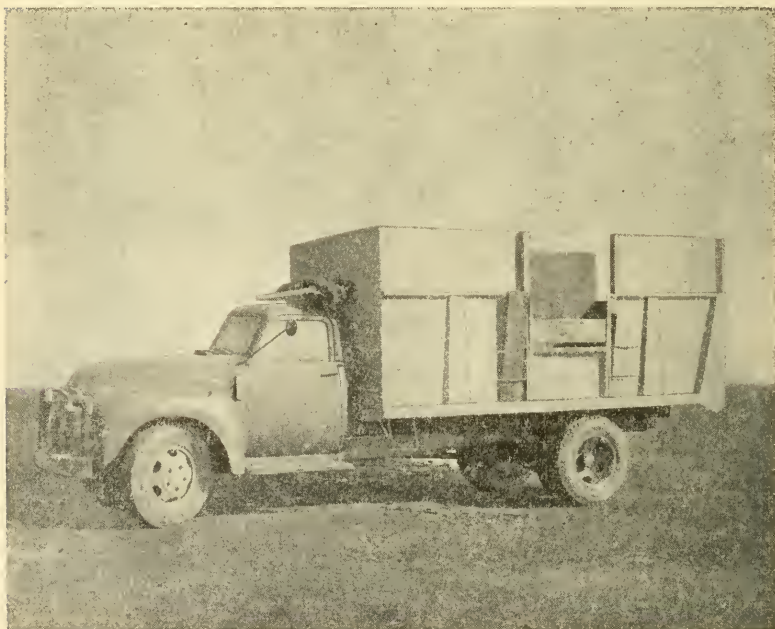
To the Commissioner of Public Works.

DEAR SIR:

Herewith I submit a statement of the activities of the Sanitary Division of the Public Works Department for the year ending December 31, 1954.

The most striking experience during the year was without any doubt the impact upon the Sanitary Division of the two hurricanes, "Carol" and "Edna," on August 31, 1954, and September 11, 1954, with winds up to one hundred one miles per hour.

The Street Cleaning Service was activated to open streets, and the shop mechanics were provided with power saws and other tools necessary to cut branches and small fallen trees. Trucks were hired to assist the city forces haul away the debris.

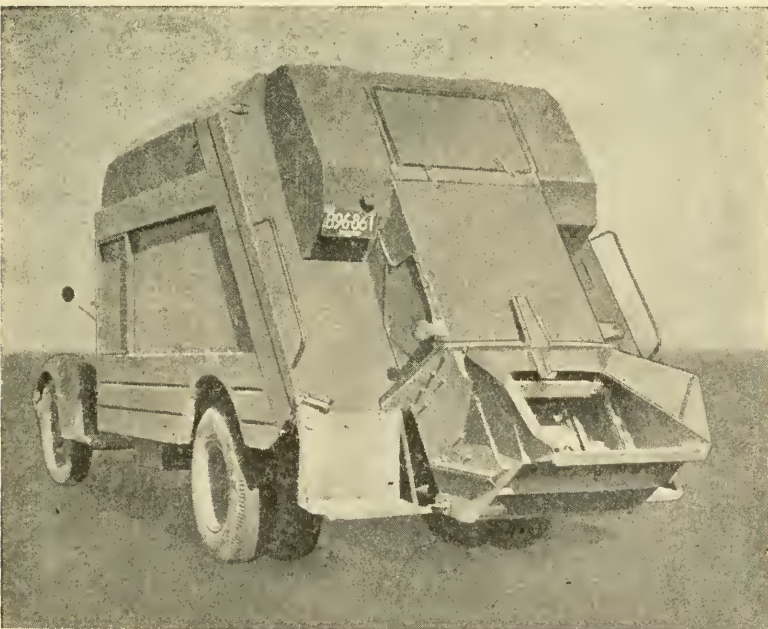


The Sewer Division was assisted in clearing catch basins because of flooded conditions in the streets and the cellars of buildings. More than $5\frac{1}{2}$ inches of rain fell during a short period of the hurricane.

State funds were provided to reimburse the Sanitary Division in the sums of \$82,438.89 for overtime and \$110,544.23 for regular time worked during the hurricane emergency clean-up. This latter amount in effect caused a saving in the personnel item of the division's budget appropriation. Also paid by the state were the costs of repairs to the roofs at the garbage receiving station at Victory Road and at the Albany Street shops.

In the interests of sanitation continued progress was made in requiring contractors on waste collection to supply automatic closed bodies on their vehicles, so that now 60 per cent of the vehicles used are of this type. It is the policy of the division to continue this change so that eventually all vehicles will be of this type. Photos of the old and the new vehicles are appended.

During the year the city acquired land for dumping at the Gardner Street dump, West Roxbury, amounting to 11.3 acres thus bringing the total area to 26 acres. The city operated this dump for the first time this year.



Last year the contractor for the West Roxbury district was required to service also material originating in the Jamaica Plain and Hyde Park districts. This change was an improvement as it obviated jurisdictional disputes and also regularized the bidding procedures.

A Quonset hut was erected at the Gardner Street dump to accommodate the bulldozer and to provide an office for the men at this location. The bulkhead line at the Calf Pasture dump was relocated by adding an area of approximately 600 x 1,500 feet of flats. Thus the future taxable area of the city will be increased by about 1,000,000 square feet.

The Jamaica Plain district office was moved from Child street to a temporary location at Forest Hills. Here construction of the William T. Morrissey Memorial Building will provide headquarters for the Sanitary and other divisions.

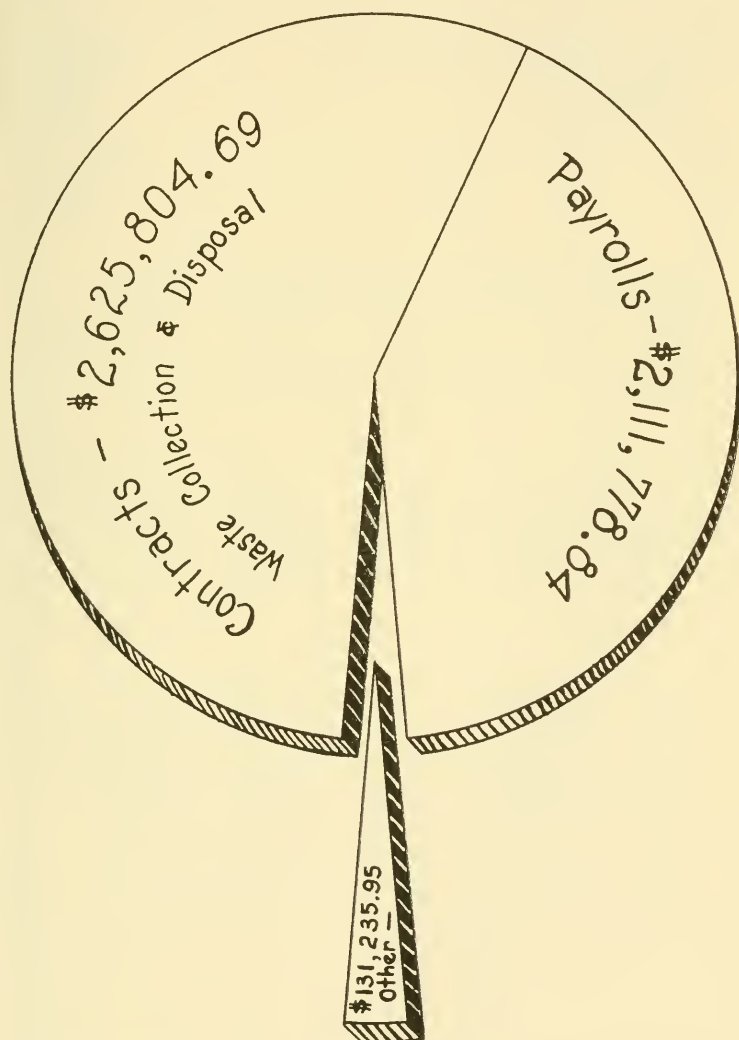
The division acquired two new motor-driven sweepers, seven Ford sedans, and two Ford dump trucks. Forty pushcarts were also purchased.

The policy of appointing district supervisors in the various districts whereby both waste collection and the street cleaning activities come under one supervisor made it necessary to alter the boundaries of the street cleaning districts to coincide with the limits of the waste collection districts. These changes have been made in the outlying districts and will be extended to cover the whole city.

Respectfully submitted,

ADOLPH J. POST,
Division Engineer.

Total Appropriation \$4,868,819.48



1954 appropriation	\$4,868,819 48
Motor vehicle cost	270,286 70
<hr/>	
Total cost	\$5,139,106 18
Recapitulation:	
Waste collection	\$2,409,940 51
Waste disposal	588,861 23
<hr/>	
Waste collection and disposal	\$2,998,801 74
Street cleaning	2,086,547 49
Preventive	25,877 06
Miscellaneous	27,879 89
<hr/>	
	\$5,139,106 18

TABLE 1.

Total Cost of Collection and Disposal of Refuse by Contract in City of Boston, and Cost Per Cubic Yard.

CONTRACT DISTRICT.	CONTRACTOR.	CHARACTER OF REFUSE.	Cubic Yards.	Cost Per District.	Cost Per Cubic Yard.	Population.	Total Cost Per Capita.
1. South Boston.....	(First 3 months) James A. Freaney, Inc.....	Mixed refuse.....	110,366				
	(Last 9 months) Anthony J. Ryan, Inc.....	Garbage.....	3,207				
		Totals.....	113,573	\$201,678 34	\$1 776	55,665	\$3 623
2. East Boston.....	(First 3 months) Edward J. McHugh & Son.....	Mixed refuse.....	84,798				
	(Last 9 months) Milano Brothers, Inc.....	Garbage.....	2,352				
		Totals.....	87,150	\$101,377 59	\$1 163	50,086	\$2 024
3. Charlestown.....		Mixed refuse.....	39,093				
	Milano Brothers, Inc.....	Garbage.....	—				
		Totals.....	39,093	\$77,083 09	\$1 972	24,244	\$3 179
4. Brighton.....	(First 3 months) Frank J. Cavaliere.....	Mixed refuse.....	97,472				
	(Last 9 months) Anthony J. Ryan, Inc.....	Garbage.....	6,619				
		Totals.....	104,091	\$230,477 52	\$2 214	72,475	\$3 140
5a. West Roxbury.....		Mixed refuse.....	83,184				
	Peerless Contracting Company.....	Garbage.....	12,649				
		Totals.....	95,833	\$154,759 33	\$1 615	49,279	\$3 140

TABLE 1.—Concluded.

Total Cost of Collection and Disposal of Refuse by Contract in City of Boston, and Cost Per Cubic Yard—Concluded.

CONTRACT DISTRICT.	CONTRACTOR.	CHARACTER OF REFUSE.	Cubic Yards.	Cost Per District.	Cost Per Cubic Yard.	Population.	Total Cost Per Capita.
5b. Jamaica Plain.....	John J. Moore Company, Inc.....	Mixed refuse.....	73,429				
		Garbage.....	5,513				
		Totals.....	78,942	\$132,103 60	\$1 673	39,243	\$3 366
6a. Dorchester—North.....	Coleman Brothers Corporation.....	Mixed refuse.....	187,988				
		Garbage.....	18,984				
		Totals.....	206,972	\$420,013 24	\$2 029	90,550	\$4 638
6b. Dorchester—South.....	Coleman Brothers Corporation.....	Mixed refuse.....	218,057				
		Garbage.....	28,783				
		Totals.....	246,840	\$477,859 80	\$1 936	103,149	\$4 633
7a. Elm Hill.....	(First 3 months) Charles A. Callahan..... (Last 9 months) William J. Banfield.....	Mixed refuse.....	38,026				
		Garbage.....	2,499				
		Totals.....	40,525	\$87,029 71	\$2 148	22,323	\$3 899
7b. Dudley.....	M. DeMatteo Construction Company..	Mixed refuse.....	45,979				
		Garbage.....	2,573				
		Totals.....	48,552	\$112,902 14	\$2 325	39,833	\$2 834
7c. Mission Hill.....	Marinucci Brothers & Co., Inc.....	Mixed refuse.....	51,206				
		Garbage.....	3,924				
		Totals.....	55,130	\$127,795 01	\$2 318	32,324	\$3 954

7d. Roxbury.....	M. DeMatteo Construction Company..	Mixed refuse	63,627				
		Garbage.....	63,627	\$164,584 97	\$2 587	43,883	\$3 751
		Total.....					
9. South End.....	(First 3 months) Anthony J. Ryan, Inc..... (Last 9 months) Frank J. Cavaliere.....	Mixed refuse.....	82,847				
		Garbage.....	—				
		Totals.....	82,847	\$161,175 92	\$1 945	50,582	\$3 186
9a. Back Bay.....	Dooley Brothers, Inc.....	Mixed refuse.....	68,346				
		Garbage.....	—				
		Totals.....	68,346	\$99,783 76	\$1 439	30,476	\$3 274
9b. Stuart.....	(First 3 months) Capitol Contracting Company..... (Last 9 months) James A. Freaney, Inc.....	Mixed refuse.....	72,611				
		Garbage.....	—				
		Totals.....	72,611	\$104,633 63	\$1 441	23,818	\$4 393
10. North and West Ends.....	Ward General Contracting Company...	Mixed refuse.....	157,862				
		Garbage.....	5,980				
		Totals.....	163,842	\$270,815 84	\$1 653	47,782	\$5 668
11. Hyde Park.....	(First 3 months) Mary C. Bryan..... (Last 9 months) Frank J. Cavaliere.....	Mixed refuse.....	39,471				
		Garbage.....	4,084				
		Totals.....	43,555	\$74,728 25	\$1 716	25,732	\$2 904
Totals.....		Mixed refuse.....	1,514,362				
		Garbage.....	97,167				
		Totals.....	1,611,529	\$2,998,801 74	\$1 861	801,444	\$3 742

Personnel changes in permanent force during the year 1954:

Total personnel January 1, 1954		*684
Transfers in (from other departments and divisions)	8	
Reinstatements	2	
Appointments	1	
	—	11
		<hr/> 695
Deaths	11	
Resignations	8	
Retirements	45	
Transfers out (to other departments and divisions)	7	
Discharged or terminated	2	
	—	73
Total personnel January 1, 1955		<hr/> *622

* Including two military leaves of absence.
Total net loss of 62 employees.

APPENDIX E.

REPORT OF THE DIVISION ENGINEER OF
THE SEWER DIVISION.

BOSTON, January 3, 1955.

To the Commissioner of Public Works.

DEAR SIR:

I submit herewith statement of the activities and expenditures of the Sewer Division for the year ending December 31, 1954.

Expenditures During 1954.—The activities of the Sewer Division during the year consisted of sewer construction at a contract cost of \$442,043.73, as shown on attached schedule of the work done, and the maintenance and operation of the sewer system at a cost of \$826,479.69.

Contract Work.—Contract work consisted of the extension of the sewer system to provide drainage for new buildings and street construction and to eliminate cess-pools, the locations and cost of which are attached.

Maintenance Work.—Maintenance work consisted of the cleaning of 1,890 catch basins by contract and 4,782 by yard forces, the freeing of stopped sewers and catch basins, and the repair of sewers, manholes, and catch basins by the yard forces and the operation of the pumping station and disposal works, the cost of which is attached.

Covering in Open Brooks.—The work of relocating and enclosing Stony Brook in a conduit for a length of about 4,200 linear feet from the former line, between West Roxbury and Hyde Park, has been completed at a contract cost of \$437,065.64.

Plans have been completed for relocating and enclosing Stony Brook in a conduit from the end of the above project to Bald Knob road, a distance of about 5,320 linear feet. This work will include the enclosing of Myopia Brook and the Providence Street Brook in conduits and the construction of incidental surface drains at an estimated cost of \$450,000. This work will

complete the enclosing of Stony Brook in a conduit. It will make possible the reclamation of many acres of adjacent swamp land for building purposes, eliminate the hazard of an open brook and provide substantial relief for the basement flooding of dwellings, located adjacent to the brook, that now occurs when the ground water level is high. It is anticipated that this work will start early in 1955.

Proposed Construction Work.— The work of extending the sewer system to provide drainage for new street construction, new building construction, and the elimination of cesspools will continue for many years in the future, and probably at the same rate as in the past. In addition, a long-range sewerage works program provides for the extension of main line surface drain conduits and the rebuilding of several miles of very old sewers that have settled or outlived their economic usefulness. Details of the long-range program are contained in a report on file in the Sewer Division.

Special Problems.— The exclusion of tide water from the main interceptor sewer has always been a troublesome problem, due to leaky, side-hung, wooden tide gates on the storm overflow that, with few exceptions, have been in service since the interceptor was put in operation in 1883. During 1954, the work of replacing 25 wooden side-hung gates on the west side interceptor with top hung metal tide gates was completed at a contract price of \$13,722.25. Since the new gates have been installed, measurements of the elevations of the water, during dry weather flow, on both sides of the gates, show that they are "holding." This is a big improvement over the situation that prevailed before the new gates were installed and indicates that a large volume of tide water has been excluded from the west side interceptor and that the project was well worth while. It is recommended that the project be extended to replace side-hung wooden tide gates on the east side interceptor during the year 1955.

The problem of low ground water level in and around Copley square was reopened this year by the Committee on Water Levels of Trinity Church. This problem had its inception in 1929 and has to do with the preservation of the wooden foundation piles of Trinity Church and other buildings in this area. The foundation piles are endangered by the ground water level falling below the pile tops. Studies made between 1929 and 1933 con-

cluded that in some manner the public sewer in St. James avenue was a factor in the lowering of the ground water level, following which the City of Boston in 1933 installed a weir and butterfly gate in the sewer at Copley square which would keep the water in the sewer slightly above the tops of the foundation piles, except when the butterfly gate was opened periodically to flush out the sewer. Records of ground water levels kept by Trinity Church since the weir was installed indicate that, in general, when the gate is closed the ground water level is satisfactory, but this is not so when the gate is opened for any protracted period of time.

The recent request of the Committee on Water Levels, referred to above, had to do, among other things, with finding a permanent solution for the problem rather than to depend on the butterfly gate, which they considered a temporary measure. For this purpose a study was made by the Sewer Division which concluded that if the ground water was being lowered by draining into the sewer, that a permanent solution would result if an equal quantity were introduced into the ground and that this could be done by storing water in the Boylston Street surface drain. This was to be accomplished by laying perforated pipes in the Copley Square grass plot and connecting them to the Boylston Street surface drain. A contract was awarded to do this work at a cost of \$8,480, which work has been completed. If the method proves successful, it will be necessary to make certain sewer changes in Dartmouth street, between Boylston street and Beacon street, which will provide a continuous supply of water for this purpose, whereas now it is necessary to secure this water by the opening of certain tide gates. If the experiment proves successful, the elimination of the Copley Square weir and the proposed sewer changes in Dartmouth street will greatly improve the drainage in this area upstream as far as Park square.

The Sewer Division Labor Force consists of the following: 18 laborers, 2 carpenters, 30 motor equipment operators and laborers, 10 catch-basin machine operators, 5 tide gate repairmen, 6 working foremen sewer cleaners, 20 sewer cleaners, 5 bricklayers, 3 yardmen, 1 heavy motor equipment operator, 5 sewer district foremen, and 1 main drainage foreman. This makes a total of 106 men assigned to answering complaints,

cleaning catch basins, cleaning sewers, repairs to man-holes and catch basins, repairing broken sewers, and other related work.

Length of Sewers Built.—During the fiscal year 1954 there were built by contractors and day labor 8.29 miles of common sewers and surface drains throughout the city. After deducting 0.16 miles of sewers and surface drains, rebuilt or abandoned, the net increase for 1954 is 8.13 miles, which added to the existing 1,271.82 miles of common sewers and surface drains and 30.93 miles of intercepting sewers, makes a grand total of 1,310.88 miles of all sewers belonging to the City of Boston, and under the care of the Sewer Division on January 1, 1955.

There were 325 catch basins built or rebuilt and 64 abandoned or removed during the year, making a net gain of 261 catch basins and a grand total of 24,233 catch basins under the care of the Sewer Division on January 1, 1955.

Permit Office Report.—Entrance fees to the amount of \$13,518.46 have been deposited with the City Collector for collection from estates upon which no sewer assessments were ever paid, in accordance with Ordinances of 1945, chapter 27, section 10.

Nine hundred and sixty permits have been issued, viz.: 238 to district foremen and contractors and 722 to drainlayers for repairing or laying new house drains. Inspectors from this office have personally inspected the work done under these drainlayers' permits.

Two thousand three hundred and seven complaints have been investigated and inspectors are instructed to report in writing in each case.

One thousand five hundred and eleven catch basin complaints were received:

Reported in writing on 2,635 municipal liens to the City Collector, in accordance with chapter 60, section 25, of the General Laws. Reported orally on about 2,350 requests for information on municipal liens.

Notices have been mailed to abutters in conformity with the Ordinances of 1925, chapter 27, section 8, apprising them of the construction of new sewers or repairs to old sewers.

Respectfully,

ROBERT P. SHEA,
Division Engineer.

Summary of Sewer Construction for Twelve Months Ending December 31, 1954.

DISTRICTS.	Built by the City Either by Contract or Day Labor.	Built by Private Parties.	Total Lengths Built.	
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Miles.</i>
City Proper.....		8,231.00*	8,231.00	1.5589
Roxbury.....	331.30	555.00	886.30	0.1678
South Boston.....	None.			
East Boston.....	20.00	1,458.00†	1,478.00	0.2799
Charlestown.....	None.			
Brighton.....	2,438.88		2,438.88	0.4619
West Roxbury.....	16,850.42		16,850.42	3.1913
Dorchester.....	2,845.25		2,845.25	0.5389
Hyde Park.....	10,831.04	215.00	11,046.04	2.0919
Totals.....	33,316.89	10,459.00	43,775.89	8.2909

* Due to the construction of John F. Fitzgerald Expressway.

† Built by D. P. W., Division of Waterways, Orient Heights Beach.

Summary of Sewer Construction for Five Years Previous to January 1, 1955.

	1950.	1951.	1952.	1953.	1954.
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>
Built by city by contract or day labor. . .	31,208.93	22,456.07	18,781.42	27,469.81	33,316.89
Built by private parties or other city departments.....	3,938.00	.....	16,484.50	11,482.00	10,459.00
Totals.....	35,146.93	22,456.07	35,265.92	38,951.81	43,775.89

Total Length of Sewers.

DISTRICTS.	Total Lengths Built During Twelve Months Ending December 31, 1954.	Lengths Removed or Abandoned During Twelve Months Ending December 31, 1954.	Additional Lengths for the Twelve Months Ending December 31, 1954.	
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Miles.</i>
City Proper.....	8,231.00	635.00	7,596.00	1.4386
Roxbury.....	886.30	190.00	696.30	0.1319
South Boston.....				
East Boston.....	1,478.00		1,478.00	0.2799
Charlestown.....				
Brighton.....	2,438.88		2,438.88	0.4619
West Roxbury.....	16,850.42		16,850.42	3.1913
Dorchester.....	2,845.25		2,845.25	0.5389
Hlyde Park.....	11,046.04		11,046.04	2.0919
Totals.....	43,775.89	825.00	42,950.89	8.1344

	Miles.
Common sewers and surface drains built previous to January 1, 1954	1,271.82
Common sewers and surface drains built between January 1 and December 31, 1954	8.13
Common sewers and surface drains built ending December 31, 1954	1,279.95
City of Boston intercepting sewers connecting with Metropolitan sewers to December 31, 1954	*6.81
City of Boston main drainage intercepting sewers to December 31, 1954	*24.12
Grand total of common and intercepting sewers to December 31, 1954	1,310.88
Total mileage of streets containing sewerage works to January 1, 1955	708.65

* No additional lengths built during 1954.

Catch Basins in Charge of Sewer Division.

DISTRICTS.	CATCH BASINS FOR TWELVE MONTHS ENDING DECEMBER 31, 1954.			TOTAL FOR WHOLE CITY IN CHARGE OF SEWER DIVISION.	
	Number Built or Rebuilt.	Number Abandoned or Removed.	Net Increase.	Previous Report to January 1, 1954.	Grand Total to January 1, 1955.
Proper.....	202	52	150	3,657	3,807
ury.....	16	0	16	3,458	3,474
Boston.....	8	4	4	1,467	1,471
Boston.....	4	0	4	1,217	1,221
estown.....	0	0	0	846	846
ton.....	0	0	0	2,087	2,087
Roxbury.....	35	0	35	4,402	4,437
ester.....	12	0	12	5,632	5,644
Park.....	48	8	40	1,206	1,246
Totals.....	325	64	261	23,972	24,233

Calf Pasture Pumping Station.

Résumé for Year 1954.

Sewage Record

MONTH.	Total Gallons of Sewage Pumped.	Average Gallons Per Day of Sewage Pumped.
January.....	3,433,904,000	110,771,097
February.....	3,381,319,000	120,761,393
March.....	2,995,322,000	96,623,290
April.....	3,190,136,000	106,337,866
May.....	3,872,266,000	125,742,200
June.....	4,043,889,000	134,462,966
July.....	3,510,024,000	113,226,580
August.....	3,869,905,000	124,838,870
September.....	3,774,838,000	125,827,930
October.....	3,694,784,000	119,186,580
November.....	3,744,621,000	124,820,700
December.....	3,696,448,000	119,240,220
Total.....	43,207,456,000	
Daily average.....		118,376,592

Fuel Oil Used.

MONTH.	Gallons No. 2	Gallons No. 5.	Cost.
January.....	200	.....	\$21 13
February.....	367	7,849	649 35
March.....	448	15,880	1,280 47
April.....	213	.....	21 82
May.....	209	.....	20 64
June.....	.....	.....	.....
July.....	232	.....	22 33
August.....	.....	.....	.....
September.....	.....	.....	.....
October.....	233	13,636	1,027 59
November.....	189	.....	19 49
December.....	140	11,709	920 72
Totals.....	2,231	49,074	\$3,983 54

Electricity Used.

MONTHS.	Kilowatt Hours.	Cost.
January.....	540,100	\$6,668 20
February.....	591,480	7,183 71
March.....	530,080	6,499 76
April.....	526,060	6,260 27
May.....	669,040	7,399 57
June.....	642,000	7,298 94
July.....	576,000	6,712 14
August.....	646,000	6,973 46
September.....	607,520	6,886 12
October.....	630,000	7,195 67
November.....	568,640	6,700 30
December.....	618,560	7,046 54
Totals.....	7,145,480	\$82,824 68

COST PER YEAR.

Labor	\$128,977 83
Edison power	82,824 68
Fuel oil	3,983 54
Supplies	3,183 23
Service orders — contracts	20,455 89
Total	\$239,425 17
Cost per million gallons of sewage pumped	\$5 56

CONSTRUCTION REPORT, 1954. Sewerage Works, 1954.

ACCOUNTS.	Total.	Labor.	Compressor, Trucks—Pumps.	Tools and Materials.	Contractor.	Sundries.
Office and engineers' salaries.....	\$94,734 14	\$94,734 14				
Office and engineers' expense.....	6,442 78	6,034 33				\$408 45
Miscellaneous.....	29,419 60	29,419 60				
Repairing streets.....	11,076 08			\$10,991 21	\$84 87	
Release sewers.....	990 78	990 78				
Stock.....	5,012 93			5,003 84		9 09
Mechanics Iron Foundry Company Contract No. 3922.....	18,888 85				18,888 85	
Mechanics Iron Foundry Company Contract No. 3975.....	6,887 18				6,887 18	
Holidays, vacations, sick, etc.....	31,163 90	31,163 90				
New catch basins, West Roxbury.....	622 10	124 90	\$201 00	296 20		
Total miscellaneous.....	\$205,238 34	\$162,467 65	\$201 00	\$16,291 25	\$25,860 90	\$417 54
Total sewers built.....	513,541 31	69,722 07		18,632 72	416,182 83	9,003 69
Total gross expenditures.....	\$718,779 65	\$232,189 72	\$201 00	\$34,923 97	\$442,043 73	\$9,421 23

CREDITS.

Construction stock used on construction.....	\$30,717 82	.....	\$30,717 82		
Construction labor paid by maintenance.....	55,085 79	\$55,085 79			
Sewerage works revenue payroll, January, 1954.	7,818 03	7,818 03			
Total credits.....	\$93,621 64	\$62,903 82	\$30,717 82		
	\$625,158 01	\$169,285 90	\$4,206 15	\$442,043 73	\$9,421 23
DEBITS.					
Maintenance payrolls paid by construction.	\$350 00	\$350 00			
Total debits.....	\$350 00	\$350 00			
Total expenditures, 1954.....	\$625,508 01	\$169,635 90	\$201 00	\$442,043 73	\$9,421 23

Sewerage Works Contracts, from January 1, 1954, to December 31, 1954.

LOCATION.	Started.	Finished.	Contractors.	Length in Feet.	Character.	Amount Expended in 1954.
SOUTH BOSTON						
Silver street, between E street and 100 feet northwesterly.	Not started.	.....	N. Bevilacqua & Son	No const.	Advertising only	\$28 00
EAST BOSTON						
Waldemar avenue, between McClellan Highway and Crestway road.	Nov. 16, 1953	Nov. 27, 1953	N. Bevilacqua & Son	No const.	Final payments only	3,961 56
Bennington street, 110 feet west of Breed street.	April 8, 1954	April 21, 1954	C. Russo, Inc.	20.00	10" pipe, surface drain	3,391 47
Minor sewerage works in Drumlin road, East Boston; Colebrook street and Bantry Way, South Boston; Dudley street, Pick- ering avenue and Dana place, Roxbury; and Newland street, City Proper.	July 8, 1954	Aug. 24, 1954	Rosindale Contracting Co.	186.00	Minor drain	8,970 55
					10 catch basins.	
					5 manholes.	
					3 drop inlets.	
BRIGHTON						
Empire street, Brighton, and minor sewer- age works in various streets in West Roxbury.	April 13, 1953	June 24, 1953	Rosindale Contracting Co.	No const.	Final payment only	730 29
Guest street, Brighton, Brownson terrace, West Roxbury.	May 10, 1954	June 8, 1954	Rosindale Contracting Co.	89.00 209.95 89.00	10" pipe, sewer	6,455 30
					10" pipe, sewer.	
					10" pipe, surface drain.	
					2 manholes.	
Margo road	Aug. 8, 1954	Sept. 2, 1954	Joseph Capone & Son	540.05 540.00	10" pipe, sewer	6,057 90
					10" pipe, surface drain.	
					3 manholes.	
Margo road and private land	Nov. 9, 1954	Dec. 16, 1954	Rosindale Contracting Co.	576.39 572.49	10" pipe, sewer	1,508 49
					10" pipe, surface drain.	
					4 manholes.	

West Roxbury

Chestnut square and outlet in Glenvale terrace and Ballin place.	Oct.	7, 1953	March 5, 1954	R. A. Buccella & Sons, Inc.	351.60 100.00	10" pipe, sewer. 10" pipe, catch basin drain. 3 manholes. 6 catch basins.	11,159 03
Cricknet Lane (west arm) and Ledgewood road.	Nov.	12, 1953	Dec. 12, 1953	Susi & DeSantis Co., Inc....	No const.	Final payments only.....	8,274 60
Ansonia road, Beech street, Beechland avenue, Franklin Hill avenue, Quinn Way, Seale road and Hopkins road.	July	7, 1953	Aug. 22, 1953	Roslindale Contracting Co.	No const.	Final payment,.....	717 55
Highfield road and minor sewerage works..	May	18, 1954	July 2, 1954	Joseph Capone & Son.....	615.60 293.00	10" pipe, surface drain..... 10" pipe, catch basin drain. 3 manholes. 17 catch basins.	11,339 64
Lantern Lane, from Weld street northerly..	Aug.	25, 1953	Sept. 17, 1953	Roslindale Contracting Co.	No const.	Final payment.....	237 85
Wedgewood road, and minor sewerage works in Alward road, Truman road and Ledgewood road.	Sept.	11, 1953	Sept. 23, 1953	A & B Construction Co.....	No const.	Final payment.....	180 02
Bruce street from Veterans of Foreign Wars Parkway 400 feet southerly, and outlet in Veterans of Foreign Wars Parkway to Manthorne road.	Aug.	28, 1954	Oct. 16, 1954	Z & S Construction Company, Inc.	706.92 690.92	10" pipe, sewer..... 10" pipe, surface drain. 3 manholes.	7,051 33
Fernwood road, Granville street and outlet. Sunnybank road and Allandale street.	April	16, 1953	June 17, 1953	R. A. Buccella & Sons, Inc.	No const.	Final payment.....	619 87
Hemlock road, from Billings street, 80 feet southwesterly, and Centre street, near May street.	Dec.	28, 1953	Jan. 6, 1954	Joseph Capone & Son.....	No const.	Final payments..... Inspection, engineering.	2,434 58
Rutledge street, from Bellevue street 200 feet easterly, and Veterans of Foreign Wars Parkway, private land, opposite Hancock Village.	March	1, 1954	March 15, 1954	Roslindale Contracting Co.	214.70 183.00 115.70	10" pipe, sewer..... 10" pipe, surface drain. 10" pipe, sewer. 3 manholes.	5,325 98
Rockwood street and Perkins street.....	Oct.	13, 1954	Nov. 12, 1954	C. Russo, Inc.....	199.33 895.49 89.00 225.90	10" pipe, sewer..... 15" to 10" pipe, surface drain. 10" pipe, catch basin drain. 10" pipe, surface drain. 7 manholes. 9 catch basins.	18,753 64

Sewerage Works Contracts, from January 1, 1954, to December 31, 1954. — Continued.

LOCATION.	Started.	Finished.	Contractors.	Length in Feet.	Character.	Amount Expended in 1954.
WEST ROXBURY, Cont.						
Wyvern street, Pitsmoor road, Quarley road.	May 25, 1953	July 17, 1953	N. Bevilacqua & Son.	No const.	Final payment	\$677 39
Oakmere street, Billings street and Hemlock road.	July 21, 1953	Oct. 31, 1953	N. Bevilacqua & Son.	No const.	Final payments and engineering ..	2,810 03
Brownson terrace.....	Oct. 26, 1954	Dec. 3, 1954	Z & S Construction Co.	363.70 363.00	10" pipe, sewer..... 10" pipe, surface drain. 4 manholes.	7,243 52
Glendower street and Clarendon avenue....	Oct. 25, 1954	Nov. 29, 1954	Joseph Capone & Son.	698.05 686.50	10" pipe, sewer..... 10" pipe, surface drain. 4 manholes.	7,189 25
Hackensack road and Hackensack court....	Not started.	.....	Rosindale Contracting Co.	No const.	Advertising and engineering only ..	570 84
Forest Hills street and Cemo road.	Not started.	.....	Rosindale Contracting Co.	No const.	Advertising only	17 50
Poplar street, between Grew avenue and Beech street, and in Neponset avenue at Summit street.	Aug. 3, 1953	March 18, 1954	Carriere Construction Co....	59.00	10" catch basin drain	6,720 41
Newfield street and Furbush road.....	Aug. 10, 1954	Oct. 2, 1954	Palfrey Construction Co....	500.40 569.70 110.40	10" pipe, sewer..... 12" pipe, surface drain. 10" pipe, surface drain. 4 manholes. 2 manholes.	8,344 27
Whitford street, from Delano park 200 feet southeasterly.	June 21, 1954	June 26, 1954	Susi & DeSantis Co., Inc.	201.13 206.00	10" pipe, sewer..... 10" pipe, surface drain. 1 manhole.	3,162 29
Washington street, between High View avenue and Grouse street.	Sept. 7, 1954	Dec. 9, 1954	C. Russo, Inc.	1,222.91 1,220.00 9.00	10" pipe, sewer..... 15" to 10" pipe, surface drain. 10" pipe, catch basin drain. 8 manholes.	16,160 86

Atwill road and outlet in private land to Richwood street.	Oct.	13, 1954	Nov.	12, 1954	N. Bevilacqua & Son.....	660.76 10" pipe, sewer..... 668.00 10" pipe, surface drain. 11.00 10" pipe, catch basin drain. 4 manholes. 1 catch basin.	8,423 48
Bellevue Hill road.....	Nov.	1, 1954	Nov.	17, 1954	Bagarella Construction Co., Inc.	358.46 10" pipe, sewer..... 372.30 10" pipe, surface drain. 4 manholes.	4,363 09
Federal road, Sherman street and water works in Federal road.	Oct.	7, 1954	Nov.	25, 1954	Susi & DeSantis Company, Inc.	179.50 10" pipe, sewer..... 322.90 10" pipe, sewer. 177.00 10" pipe, surface drain. 327.40 10" pipe, surface drain. 4 manholes.	7,906 65
Moss Hill road, Mossdale road and Driftwood road.	Dec.	1, 1954	Not completed.		Susi & DeSantis Company, Inc.	502.40 10" pipe, sewer..... 504.40 10" pipe, surface drain. 10 manholes.	2,642 73
DORCHESTER							
Brockton street and minor sewerage works in various streets.	May	5, 1953	June	12, 1953	Bagarella Construction Co., Inc.	No const.	454 80
William T. Morrissey Boulevard, from 1,100 feet south of Mt. Vernon street 280 feet northerly.	Dec.	15, 1953	May	1, 1954	C. Russo, Inc.....	280.70 12" clay pipe, sewer..... 1 manhole.	10,069 74
Mt. Vernon street, between William T. Morrissey Boulevard and end of street.	March	27, 1954	May	4, 1954	Charles Callahan Company.	491.00 Minor drain..... 122.25 24" concrete pipe, surface drain. 558.65 12" concrete pipe, surface drain. 162.80 10" concrete pipe, surface drain. 12 catch basins. 11 manholes.	21,742 30
William T. Morrissey Boulevard, from 1,170 feet south of Mt. Vernon street 365 feet southerly.	June	30, 1953	July	21, 1953	R. A. Bucella & Sons, Inc.	No const.	561 82
Edgewater Drive, from River street 290 feet southwesterly.	Aug.	17, 1953	Sept.	4, 1953	Z & S Construction Co., Inc.	No const.	285 39
Groveland street, between Manchester street and land of City of Boston Housing Authority.	Sept.	23, 1954	Dec.	20, 1954	Rosindale Contracting Co.	863.65 10" clay pipe, sewer..... 204.55 10" concrete pipe, surface drain. 593.30 12" concrete pipe, surface drain. 59.35 12" pipe, surface drain. 14 manholes.	7,888 59

Sewerage Works Contracts, from January 1, 1954, to December 31, 1954. —Continued.

LOCATION.	Started.	Finished.	Contractors.	Length in Feet.	Character.	Amount Expended in 1953.
HYDE PARK						
Ayles road, from Westminster street to Safford street, and Westminster street, from Ayles road 70 feet northeasterly.	Jan. 25, 1954	March 22, 1954	A. D'Alessandro & Sons....	527.10 437.60 91.10 14.00	10" clay pipe, sewer..... 12" concrete pipe, surface drain... 10" concrete pipe, surface drain. Minor drain. 4 manholes.	\$4,837 54
Dietz road, from Alwin street 265 feet south-westerly, and Kardon road, from Dietz road to end.	March 25, 1954	April 15, 1954	Susi & DeSantis Company, Inc.	553.70 282.05 270.35 16.00	15" clay pipe, sewer..... 10" concrete pipe, surface drain. 10" clay pipe, surface drain. Minor drain. 3 manholes.	10,068 82
Stony Brook, Section 17.....	June 1, 1953	Oct. 21, 1954	Daddario-Piatelli.....	141.75 895.00 12.00 24.00 54.00 54.00 55.00 54.00 50.00	84" vitrified clay pipe..... 72" vitrified clay pipe. 54" vitrified clay pipe. 30" vitrified clay pipe. 24" vitrified clay pipe. 21" vitrified clay pipe. 18" vitrified clay pipe. 15" vitrified clay pipe. Minor drain. 4 catch basins. 11 manholes.	168,687 00
Sewerage works and water works in Alwin street and outlet in private land to Alwin terrace and Cherry Lane.	Nov. 9, 1953	Dec. 17, 1953	DiMascio Brothers & Co....	No const.	Final payments only.....	8,675 23
Summit street.....	Oct. 4, 1954	Not completed.	Adams Asphalt Co., Inc....	300.00 170.00 90.00	Minor drain..... 10" concrete pipe, surface drain. 12" concrete pipe, surface drain. 19 catch basins. 2 manholes.	10,895 57
Wash borings for Stony Brook.....	Dec. 11, 1953	Dec. 24, 1953	Carr Dee Test Boring and Construction Company.	No const.	Final payments only.....	835 80

Austin street and outlet in Marston street. Reservation road at Sunnyside street.	July 24, 1953	Sept. 18, 1953	Joseph Capone & Son.....	No const.	Final payment only.....	918 03
Metropolitan avenue and outlet in private land and Truman Highway from Edith street to Vose avenue extended.	May 28, 1953	June 16, 1953	Z & S Construction Co.....	No const.	Final payment only.....	547 12
Chesterfield street, Manila avenue, Danny road, Vallaro road, and Reynolds road.	July 6, 1954	Aug. 16, 1954	C. Russo, Inc.....	157.20 1,482.43 298.00	8" clay pipe, sewer..... 12" concrete pipe, surface drain. Minor drain. 19 catch basins. 7 manholes.	18,766 59
Dietz road, Daniel court, Susanna court, and Sanders court in Stony Brook Village.	July 14, 1954	Aug. 27, 1954	Z & S Construction Co., Inc.	28.00 2,024.14 625.32 402.25 249.50	Minor drain..... 10" clay pipe, sewer. 15" concrete pipe, surface drain. 12" concrete pipe, surface drain. 10" concrete pipe, surface drain. 21 manholes.	27,744 95
Norton street, from Readville street to River street.	Aug. 17, 1954	Sept. 3, 1954	C. Russo, Inc.....	653.60 402.00	12" concrete pipe, surface drain... Minor surface drain. 25 catch basins. 6 manholes.	6,923 85
Derry road, between Westminster and Saf- ford streets, and outlet in Westminster street to Ayles road.	Nov. 16, 1954	Dec. 13, 1954	Susi & DeSantis Company, Inc.	280.85 467.40 170.30 181.75 239.55 64.00	12" clay pipe, sewer..... 36" concrete pipe, surface drain. 10" pipe, sewer. 12" concrete pipe, surface drain. 12" pipe, sewer. Minor drain. 4 manholes. 1 jug.	1,638 35
Outlet for Dell terrace in private land to Lincoln street.	Nov. 22, 1954	Dec. 31, 1954	N. Bevilacqua & Son.....	206.10	10" clay pipe, sewer..... 2 manholes.	1,871 60
Leighton road, Dodge road, Kristin court, and Eastmont road.	Dec. 13, 1954	Not completed.	C. Russo, Inc.....	No const.	Advertising, inspection and en- gineering only.	2,566 87
Sherrin street, Hyde Park, and Richrow street, Dorchester.	Not started.	.....	D. Federico Company.....	No const.	Advertising, inspection and en- gineering only.	1,353 77
Summer street, from West street 750 feet southerly.	Not started.	.....	J. D'Amico, Inc.....	No const.	Engineering only.....	78 46

Sewerage Works Contracts, from January 1, 1954, to December 31, 1954.—Concluded.

LOCATION.	Started.	Finished.	Contractors.	Length in Feet.	Character.	Amount Expended in 1954.
ROXBURY						
Joslin road (formerly Austin street), from Brookline avenue to Pilgrim road and in Deaconess road.	Nov. 30, 1953	Dec. 12, 1953	N. Bevilacqua & Son..... S. J. Tomassello Corp.....	No const.	Final payments..... Repairing.	\$3,443 98
Annunciation road, Island street, Pike street, P. A. 1001, Roxbury, and in Faywood road and Crestway road, East Boston.	July 15, 1953	Aug. 25, 1953	C. Russo, Inc.....	No const.	Final payment.....	860 40
Allerton street, between Rusfield street and Peirson street; Peirson street, between Massachusetts avenue and Allerton street; Pompeii street, from Allerton street 50 feet easterly; Chesterton street, from Allerton street 60 feet easterly and Allerton street at Gerard street.	May 17, 1954	June 7, 1954	Z & S Construction Com- pany, Inc.	258.00 286.80	Minor drain..... 12" pipe, sewer. 1 drop inlet. 11 catch basins. 4 manholes.	13,022 13
CITY PROPER						
Harvard street, from Albany street to Hudson street.	July 6, 1953	Aug. 14, 1953	John J. Botti.....	No const.	Final payment only.....	405 83
Installation of tide gates west side interceptor.	June 23, 1954	Oct. 13, 1954	James A. Freaney, Inc.....	.....	Inspection, engineering and con- tractor.	12,297 62
Fitzgerald Highway (formerly Overhead Highway).	.....	Not completed.	Commonwealth of Massa- chusetts.	No const.	Inspection only.....	2,669 20
Total expense for sewers built, 1954.....	.....	.....	.....	.....	.....	\$513,541 31

Sewer Division — Maintenance Expenditures, Details, 1954 — Outside Improved Sewerage.

Accounts.	Totals.	Labor.	Repairs.	Motor Vehicles.	Taxes.	Contractor.	Light, Heat and Power.	Materials.	Tools and Equipment.	Miscellaneous.
Automobiles.....	\$1,499 15	\$1,499 15								
Clean catch basins.....	64,151 16	39,272 36		\$13,047 00		\$11,831 80				
Clean sewers.....	116,820 16	100,021 66		16,798 50			\$936 38			
Fuel and oil.....	936 38							\$2,396 63		\$3 56
Hardware and tools.....	2,451 01		\$50 82							
House connections.....	9,148 53	9,005 85		97 00				45 68		
Office expense.....	8,879 65	4,206 75	18 75	880 80				86 13		Engineering service Stationery..... Postage..... Sundries.....
Office salaries.....	54,020 71	54,020 71								
Stock.....	3,845 50							3,845 50		
Yards.....	60,315 34	59,080 79		27 00			182 20	446 57		New lavatory..... Towels..... Sundries.....
New automobiles.....	12,714 34			12,714 34						
Removing deposits from surface drain conduits, Prescott and Frankfort streets.....										
Cleaning conduit Davenport Brook from Hallet street to Gallivan Boulevard and Magdala street, Dorchester....	5,824 87	350 00				5,474 87				
	8,491 20					8,491 20				

Sewer Division—Maintenance Expenditures, Details, 1954—Outside Improved Sewerage.—Concluded.

ACCOUNTS.	Totals.	Labor.	Repairs.	Motor	Taxes.	Contractor.	Light, Heat and Power.	Materials.	Tools and Equipment.	Miscellaneous.
Repair, clean and sand streets.....	\$170 58			\$6 00		\$164 58				
Repair department buildings.....	17 64		\$17 64							
Repair catch basins, South Boston.....	877 26			160 50		216 00		\$500 76		
Repair catch basins, East Boston.....	799 63	\$41 80		201 00				556 83		
Repair catch basins, Charlestown.....	154 89			60 92				93 97		
Repair catch basins, Brighton.....	544 46	290 30		87 00				167 16		
Repair catch basins, West Roxbury.....	5,586 11	5,379 40		153 50				53 21		
Repair catch basins, Dorchester.....	7,045 30	4,143 63		519 00		960 40		1,422 27		
Repair catch basins, Hyde Park.....	329 64	216 15		24 00				89 49		
Repair catch basins, Roxbury.....	1,195 49			211 00				984 49		
Repair catch basins, City Proper.....	16,480 98	14,554 85		376 50				1,549 63		
Repair sewers, South Boston.....	274 20	10 86		255 00				8 34		
Repair sewers, East Boston.....	155 27			18 00				137 27		

Sewer Division — Maintenance Expenditures, Details, 1954 — Improved Sewerage.

ACCOUNTS.	Totals.	Labor.	Repairs.	Motor Vehicles.	Taxes.	Contractor.	Light, Heat and Power.	Materials.	Tools, and Equipment.	Miscellaneous.
Pumping Station, Calf Pasture.....	\$182,248 18	\$84,301 50	\$3,131 17				\$87,434 44	\$7,213 12		Towel service..... \$45 60 Insurance..... 51 60 Advertising..... 26 00 Sundries..... 44 75
Pumping Station, Union Park street...	18,137 10	15,113 02	52 99				2,904 45	6 04		Towel service..... 21 60 Insurance..... 34 35 Sundries..... 4 65
Pumping Station, Summer street.....	3,881 22	1,852 70					2,028 52			
Moon Island.....	47,994 80	46,064 83			\$572 00		1,051 71	219 78		Towel service..... 45 60 Insurance..... 25 50 Sundries..... 15 38
Main and intercepting sewers.....	52,019 70	45,150 13	10 00	\$5,055 00			646 72	1,071 18		Towel service..... 45 60 Insurance..... 34 35 Sundries..... 6 72
Calf Pasture Pumping Station, installation of new discharge valves (Beacon Piping Co., Contractor).	8,016 35					\$8,016 35				
Totals.....	\$312,297 35	\$192,482 18	\$3,194 16	\$5,055 00	\$572 00	\$8,016 35	\$94,065 84	\$8,510 12		\$401 70

Sewer Division — Maintenance Expenditure, Details, 1954.—Recapitulation of Maintenance.

ACCOUNTS.	Totals.	Labor.	Repairs.	Motor Vehicles.	Taxes.	Contractor.	Light, Heat and Power.	Materials.	Tools and Equipment.	Miscellaneous.
Outside improved sewerage expenditures...	\$507,401 52	\$405,156 35	\$294 26	\$47,689 06	.....	\$28,410 90	\$1,327 35	\$14,564 86	.....	\$9,958 74
Improved sewerage expenditures.....	312,297 35	192,482 18	3,194 16	5,055 00	\$572 00	8,016 35	94,065 84	8,510 12	.....	401 70
Totals.....	\$819,698 87	\$597,638 53	\$3,488 42	\$52,744 06	\$572 00	\$36,427 25	\$95,393 19	\$23,074 98	.....	\$10,360 44
CREDITS.										
Maintenance stock used on maintenance.....	\$1,733 09									
Construction stock used on maintenance.....	6,244 96									
Motor vehicles used on maintenance.....	39,976 92									
Maintenance labor paid by sewerage works.....	350 00	350 00	.....	39,976 92	.....	.....	.....	7,978 05	.....
Totals.....	\$771,393 90	\$597,288 53	\$3,488 42	\$12,767 14	\$572 00	\$36,427 25	\$95,393 19	\$15,096 93	.....	\$10,360 44
DEBITS.										
Construction labor paid by maintenance.....	\$55,085 79	\$55,085 79								
Totals.....	\$826,479 69	\$652,374 32	\$3,488 42	\$12,767 14	\$572 00	\$36,427 25	\$95,393 19	\$15,096 93	.....	\$10,360 44

APPENDIX F.

REPORT OF THE SURVEY DIVISION FOR
THE YEAR 1954.

BOSTON, January 3, 1955.

To the Commissioner of Public Works.

DEAR SIR:

I respectfully submit the following report of the organization and activities of the SURVEY DIVISION, which was established on May 1 under the provisions of chapter 2, section 56 of the Revised Ordinances of 1954 (Reorganization Plan). All of the functions of the former Board of Street Commissioners were transferred to the Public Works Department or the Public Improvement Commission, which was set up in the Public Works Department, except those relating to the storage and sale of inflammables, filling stations and parking lots, which were transferred to the Committee of Licenses in the Public Safety Commission of the Building Department; and those relating to the abatement of taxes were transferred to the Real Property Department. Subsequently, all work of the Public Works Department necessary for the performance of these functions, except the supervision of encroachments and the use of public ways for storage and sale of merchandise, were assigned to the Survey Division.

Accordingly, this Division now performs engineering services for the various divisions of the Public Works Department and other city departments, boards and commissions. It also performs administrative and engineering duties required by the Public Improvement Commission for its operation.

The principal engineering duties include:

- (a) the making of plans, surveys, estimates and reports relating to the laying out, widening, construction, and design of public highways;
- (b) the taking of easements for sewerage works;
- (c) staking out lines and grades for the construction of highways, sewerage, etc.;

(d) the making of property surveys of land to be acquired by the City of Boston by eminent domain;

(e) the making of plans and surveys of city-owned land for purpose of sale, interdepartmental transfer or new development;

(f) the making of various engineering surveys and plans required by other city departments.

For the Public Improvement Commission, the administrative functions include the processing of petitions, arranging public hearings, preparing estimates and orders relating to land damages and street and sewer betterments, preparing orders for the laying out of streets and the construction of streets and sewers, preparing orders for eminent domain land takings, preparing orders for the granting of permits for use of public highways, erection of poles, etc., and the maintenance of all records in the charge of the Public Improvement Commission.

Personnel:

On May 1, 1954, thirty-six permanent and eight temporary employees, listed below, were transferred from the former Street Laying-Out Department to the newly created Survey Division. Also, one permanent employee was transferred from the Central Office of the Public Works Department. On December 1, 1954, three permanent employees of the former Street Laying-Out Department were transferred from the Sewer Division to this Division.

NAME	TITLE
Kenneth L. Benkart.....	Senior Engineering Aide
Charles E. Brewer.....	Assistant Civil Engineer
Arthur J. Brickley.....	Junior Civil Engineer
John A. Bulliner†.....	Junior Engineering Aide
George F. Buckley.....	Junior Civil Engineer
Joyce E. Campbell.....	Clerk-Stenographer
Elizabeth A. Clayton.....	Head Clerk
Edward J. Colman.....	Title Examiner
William F. Conway.....	Senior Designing Engineer (Highways)
Michael J. Corrao*.....	Principal Clerk and Secretary
George L. Creney§.....	Photostat Operator
John J. Curley.....	Senior Engineering Aide
Salvatore C. Diliberto.....	Assistant Civil Engineer
William F. Duggan.....	Principal Clerk and Stenographer
Raymond L. Fales†.....	Senior Engineering Aide (D)
Harry M. Fletcher.....	Assistant Civil Engineer
Thomas O. Flood†.....	Senior Engineering Aide

* Transferred from Central Office, Public Works Department.

† Temporary employees.

§ Transferred from Sewer Division, Public Works Department, December 1, 1954.

D Draftsman.

NAME	TITLE
Edward P. Fogarty.....	Head Clerk
John L. Galvin.....	Senior Engineering Aide
Robert F. Gately.....	Principal Clerk and Typist
George H. Gilboy.....	Senior Engineering Aide
John F. Gilmore, Jr.....	Senior Engineering Aide
Samuel R. Goodwin†.....	Senior Clerk
James W. Haley.....	Chief Engineer
George C. Hallisey.....	Assistant Civil Engineer
Leo P. Hughes†.....	Junior Engineering Aide
Roland A. Hull.....	Junior Civil Engineer
Angelo J. Ialuna.....	Assistant Civil Engineer
John F. Kelley.....	Senior Engineering Aide
William L. Koelsch†.....	Senior Engineering Aide (D)
Frank S. Lane.....	Senior Engineering Aide
Walter R. Luby.....	Senior Civil Engineer
William F. Madden†.....	Junior Engineering Aide
Thomas P. McCusker.....	Assistant Executive Secretary
Francis McHugh.....	Senior Engineering Aide
Robert P. Mehegan.....	Senior Clerk and Typist
Frederick Milliken.....	Senior Engineering Aide (D)
A. Albert Minichiello.....	Assistant Civil Engineer
Philip A. Moynahan.....	Senior Engineering Aide (D)
James E. Murray.....	Senior Engineering Aide
John Murphy†.....	Senior Engineering Aide
William P. Norris§.....	Principal Duplicating Machine Operator
John W. O'Brien.....	Senior Engineering Aide
Joseph C. Parsons.....	Principal Clerk
Thomas E. Rafferty.....	Assistant Civil Engineer
Albert J. Rodriguez.....	Senior Engineering Aide
John J. Ryan.....	Assistant Civil Engineer
Charles D. Sullivan.....	Principal Clerk and Stenographer
Redmond L. Walsh§.....	Head Photostat Operator

Division Expenditures, May 1, 1954 to December 31, 1954, Inclusive.

	Survey Budget.	Highway Loan	Sewer Loan
Personnel.....	\$93,986 49	\$30,363 81	—
Pensions.....	9,238 07	—	—
Contractual services.....	2,309 88	6,636 35	\$1,579 25
Supplies and materials.....	4,154 60	—	—
Current charges and obligations.....	4 00	—	—
Equipment.....	2,506 26	—	—
Totals.....	\$112,199 30	\$37,000 16	\$1,579 25

TOTAL EXPENDITURES \$150,778 71

During the period covered by this report, the Survey Division completed eighty-six (86) surveys and plans for the improving of existing highways or laying out of

† Temporary employees.

‡ On leave of absence without pay.

§ Transferred from Sewer Division, Public Works Department, December 1, 1954.

D Draftsman.

new ones totaling 9.79 miles. Thirty (30) surveys and plans for 2.16 miles of sewerage easements were also made. Sixteen (16) surveys and plans of city-owned land or land to be taken for municipal purposes were also made

Field engineering work including the staking out of sixty-three (63) streets for the Paving Service of the Highway Division, twenty-five (25) streets for the Sewer Division, and miscellaneous services for other city departments. One survey and plan for a water easement totaling 1.44 miles in West Roxbury and Hyde Park was made and a survey and plan for a highway easement from Squantum Head to Long Island, 3.21 miles long was also made. Regular routine work included the re-surveying of street lines for private engineers wherever existing records were inadequate or obsolete, marking lines and grades for private construction abutting public streets, examining land court plans for the Law Department, preparing land damage reports for the Public Improvement Commission, drafting charts, graphs, etc., for the Administrative Services Department, City Auditor, and others. Listed below are the major engineering surveys and plans completed during the period of this report.

For the Public Improvement Commission:

Forty-four (44) surveys and plans were made for the laying out of 4.10 miles of public highways, as follows:

<i>Charlestown</i>	<i>Length in Feet.</i>
Terminal street	3,100
<i>Dorchester</i>	
Arborcrest terrace	394
Auriga street	235
Bernard street	485
Bluefield terrace	524
Briarcliff terrace	418
Cragmere terrace	300
Crossman street	560
Donwood terrace	353
Gladeside avenue	1,790
Itasca street	450
Leahaven road	404
Ledgebrook road	506
Linvale terrace	420
Mamelon Circle	835

	<i>Length in Feet.</i>
Meadowbank avenue	942
Newcroft Circle	672
Ridgeview avenue	1,310
Southmere road	523
Westville terrace	196

Hyde Park

Alwin street	1,111
Ayles road	1,320
Cheryl Lane	375
Edwardson street	200
Elliot street	460
Frazer street	755
Garfield avenue	364
Lewiston street	305
Safford street	900
Stonehill road	999
Westminster street	720

Roxbury

Ackley place	200
South Bay avenue	935

West Roxbury

Bradeen Street Footway	170
Brookway Footpath	432
Brookway Road Extension	623
Brookway terrace	441
Cricket Lane	800
Emmonsdale road	500
Hackensack road	280
Pomona street	230
Sparrow street	300

Twelve (12) surveys and plans were made for the widening and relocation of .80 mile of public highways as follows:

<i>Street</i>	<i>Length in Feet.</i>
A street, South Boston	616
Baker street, West Roxbury	900
Brook Farm road, West Roxbury	775
Canterbury street, West Roxbury	34
Hyde Park avenue, Hyde Park	375
Morton street, West Roxbury at Canterbury street	140
Morton street, West Roxbury (Cemetery road to Forest Hills street)	425

	<i>Length in Feet.</i>
Mother Julia road, Dorchester	223
North square, Boston Proper	75
Newmarket square, Roxbury	800
Public Alley No. 908, Boston Proper	80
West street, Hyde Park	62

Three (3) surveys and plans were made for the discontinuance of .04 mile of public highways as follows:

Beech street, West Roxbury	65
Centre street, West Roxbury	112
Grove square, Boston Proper	56

Twenty-seven (27) surveys and plans were made for the alteration (specific repair) of 5.85 miles of public highways as follows:

	<i>Length in Feet.</i>
A street, South Boston	3,552
Adams street, Dorchester, at Neponset avenue	
American Legion Highway, West Roxbury, at Cummins Highway	
Arlington street, Boston Proper, at Commonwealth avenue	
Atlantic avenue, Boston Proper, at northeasterly corner of Kneeland street	
Beacon street, Brighton, at Cleveland Circle	
Blue Hill avenue, at Talbot avenue	
Blue Hill avenue, Dorchester, at Geneva avenue	
Cemetery road, West Roxbury	657
Charles street, Boston Proper (at southeasterly corner of Branch street and the northeasterly and southeasterly corners of Chestnut street)	
Charles street, Boston Proper (at the northeasterly and southeasterly corners of Revere street)	
Charles street, Boston Proper (at the southwesterly and northeasterly corners of Pinckney street)	
Chestnut street, Boston Proper, at West Cedar street	
Columbus avenue, Roxbury, at Roxbury Crossing	
Cummins Highway, West Roxbury and Dorchester	4,890
Dorchester avenue, Dorchester, at Talbot avenue	
Dorchester street, South Boston	3,540
Harrison avenue, Boston Proper	1,280
Huntington avenue, Roxbury	2,225
Hyde Park avenue, Hyde Park, at Harvard street	
Hyde Park avenue, Hyde Park and West Roxbury	9,370

	<i>Length in Feet.</i>
Marlborough street, Boston Proper, at Public Alley No. 908	
Milton street, Hyde Park, at Sprague street	
Morton street, West Roxbury	5,201
Mt. Vernon street, Boston Proper	180
Stuart street, Boston Proper, at northwesterly cor- ner of Broadway	

Two (2) surveys and plans were made for the revision of grade of .27 mile of public highways as follows:

Parklawn road, West Roxbury	145
Rockland street, West Roxbury	1,302

Thirty (30) surveys and plans were made for the taking of 2.16 linear miles of easements for sewerage purposes as follows:

<i>Brighton</i>	<i>Length in Feet.</i>
Guest street	1,225
Margo road	500
<i>Boston Proper</i>	
Concord place	20
<i>Dorchester</i>	
Groveland street	200
Richrow street	293
Violet street	270
<i>Hyde Park</i>	
Daniel court	180
Dietz road	1,105
Dodge road	300
Eastmont road	408
Kristin court	225
Leighton road	560
Senders court	435
Susanna court	230
Wharton court	200
<i>West Roxbury</i>	
Banks street	120
Brownson terrace	400
Brucewood street	390
Cemo road	206
Clarendon avenue	190
Driftwood road	406

	<i>Length in Feet.</i>
Federal road	300
Furbush road	192
Glendower street	495
Hackensack road	201
Hackensack court	240
Mossdale road	1,452
Newfield street	346
Sherman street	150
Upland street	156

Six (6) surveys and plans were made for the taking by eminent domain of 1,227,522 square feet of land for municipal purposes, as follows:

LOCATION.	Area.	Department.
Morton street, Dorchester (at Fuller street)	19,630	Fire
Faywood avenue, East Boston (at Crestway road)	37,300	School
Faywood avenue, East Boston (at Montmorenci avenue)	69,281	School
South Bay avenue, Roxbury (at Atkinson street)	320,413	Public Works (Sanitary)
Gardner and High streets, West Roxbury	492,397	Public Works (Sanitary)
Cummins Highway, West Roxbury, to Grant Place, Hyde Park (easement)	278,501	Public Works (Water)

For the Public Works Department (Highway Division), sixty-three (63) highways were staked out for construction. Lines were also given for the construction of a new fence at the Moreland Street yard and the Forest Hills Street yard.

For the Public Works Department (Sewer Division), sixty-eight (68) catch basins were staked out for construction. Also forty (40) reports recommending the location of ninety-four (94) new catch basins were made.

For the Public Works Department (Bridge Division), four (4) surveys and plans of the abandoned ferry docks were made.

For the Public Works Department (Water Division), a survey and plan was made of city-owned land at Western avenue, Everett street, and Soldiers Field road, Brighton.

For the Public Works Department (Sanitary Division), a survey and plan was made of city-owned land at South street and Child street, West Roxbury.

For the Law Department, a survey and plan was made of No. 317 Dartmouth street, Boston Proper, and seven (7) surveys and plans were made of city-owned land at East Broadway, South Boston; Rutherford avenue and Cambridge street, Charlestown; Mackin street, Richardson street and Waverly street, Brighton; Warren avenue and Fairmount avenue, Hyde Park; Hastings street and Henshaw street, West Roxbury; Common street and Warrenton street, Boston Proper; and Rowe street and Seymour street, West Roxbury. Also forty-four (44) plans filed with Land Court petitions were examined and checked for street line references.

For the Real Property Department, five (5) surveys and plans were made for off-street parking at Thomas street, West Roxbury; Winthrop street, Hyde Park; Uphams Corner, Dorchester; Ruggles street, Roxbury; and Mattapan square, Dorchester. A topographical plan was also made for the Mattapan Square site. Plans were made of city-owned land at Crossman street, Dorchester; and Austin street, Summer street, and West street, Hyde Park.

For the Library Department, a survey and plan was made of land on East Ninth street, South Boston.

For the Institutions Department, a survey of the city boundary line at Deer Island was made.

For the Hospital Department, a survey and plan was made of an access road easement from Dorchester street, Squantum to the Long Island Hospital, a distance of 3.21 miles.

For the Police Department, speed traps were staked out at various locations in Brighton.

For the School Committee, the following school properties were staked out: Smith street, Roxbury; Dighton street, Brighton; and Lothrop street, Brighton.

In addition to the foregoing engineering works done for the Public Improvement Commission, other Public Works Department Divisions and other city departments, the general operation of our own Survey Division included the following:

(A) *Stone Bounds*.—In accordance with a policy established in 1950, stone bounds were set and drilled on the following newly constructed streets:

STREET.	District.	Number of Bounds.
Alberta street.....	West Roxbury.....	8
Andria road.....	Hyde Park.....	3
Austin street.....	Hyde Park.....	8
Badger road.....	Hyde Park.....	2
Cranmore road.....	Hyde Park.....	12
Crestway road.....	East Boston.....	2
Denby road.....	Brighton.....	2
Eastwood Circuit.....	West Roxbury.....	16
Empire street.....	Brighton.....	5
Faneuil street.....	Brighton.....	10
Faywood avenue.....	East Boston.....	4
George street.....	Hyde Park.....	3
Halsey road.....	Hyde Park.....	4
Mayflower street.....	Brighton.....	2
Rendall road.....	West Roxbury.....	3
Skyline road.....	Hyde Park.....	2
Solaris road.....	Hyde Park.....	5
Southview street.....	Dorchester.....	9
Stoughton Street place.....	Dorchester.....	2
Sunnybank road.....	West Roxbury.....	4
Van Brunt street.....	Hyde Park.....	8
Verona street.....	West Roxbury.....	2
Wakefield avenue.....	Hyde Park.....	7
Wenlock road.....	Dorchester.....	5
Whitby terrace.....	Dorchester.....	2
Wilton street.....	Hyde Park.....	2
Woodley avenue.....	West Roxbury.....	2
Worley street.....	West Roxbury.....	4

When sufficient personnel becomes available, it would be advisable to extend this program of setting stone bounds to every street in which construction is done. In this way, over a period of 20 or 30 years, street lines and street line records would be preserved on a great portion of our city streets. At least three additional survey parties would be needed for this work.

(B) *Private Street Survey.*—In connection with the Public Improvement Commission's program of re-naming private streets to reduce the number of duplications and eliminate some of the existing confusion in street names, all of the city's private ways numbering over 2,000 were viewed by engineers of this division during 1954. Many were found to be nonexistent, having been wiped out by redevelopment and new construction. These were dropped from our records. Of the remaining, approximately 1,500 open to public travel were checked for possible street name changes and

recommendations were made in many cases. Those not open to public travel, approximately 600, including many so-called paper streets and alleys or passageways not large enough to accommodate vehicles, were listed and will hereafter be so identified in our records and in the forthcoming edition of "Boston's Streets" reported on below.

(C) "*Boston's Streets*" (Street Book)—In June, 1954, work was begun on the preparation of a new edition of "Boston's Streets," the last one having been published in 1951. This book is the "official" list of the city's streets, both public and private. By December 31, the work was approximately 80 per cent complete and it is estimated that printing will begin on or about April 1, 1955.

(D) *Reproduction Work*.—On December 1, 1954, the Reproduction Unit, formerly a part of the Street Laying-Out Department, was transferred to this Division from the Sewer Division to which it had been attached on May 1, 1954. This unit makes blueprints, ozalids, autositives, and photostatic copies of plans and records for all city departments. In December, the following reproduction work was done:

DEPARTMENT.	PHSTS	BPS	OZS	APS
Administrative Services				
(Budget Division).....	22			
Auditing.....	10			
Assessing.....	112		133	
Building.....	108			
City Clerk.....	56			
Treasury				
(Collecting Division).....	18			
Health (Central Office).....	114			
Health (Registry Division).....	140			
City Planning.....	176		97	
Mayor's Office				
(Public Celebrations).....	50			
Public Works				
(Central Office).....	54			
(Bridge Division).....	68		77	
(Highway Division).....	242	192	175	5
(Water Division).....	48			
(Sewer Division).....	220		39	
(Survey Division).....	644	362	177	4
Real Property.....	164		131	
Retirement.....	338			
School Buildings.....	16			
Registry of Deeds.....	24			
Rent Control.....	190			
Treasury.....	20			
City Council.....	36			
Miscellaneous.....	80			
Totals.....	2,940	554	889	9

(E) *Assessments*.—During the period reported on, estimates of benefit for assessment purposes were prepared on 373 parcels of land, amounting to \$117,560.45. These estimates are included in orders for street and highway improvements. Also final assessments were prepared on 522 parcels of land, amounting to \$169,581.31.

(F) *Engineering Information Services*.—A report of this Division would be incomplete without covering the general engineering information provided the public. This service includes (a) furnishing street line data to land surveyors; (b) searching existing plans and records for lawyers, conveyancers, engineers, and architects for information relating to streets and private property within the city; (c) furnishing information on outstanding liens and assessments in connection with property transfers; and (d) making appearances in court with official plans and records. All of this is necessary but time-consuming work, and it is estimated that the equivalent of two full-time employees is required.

This first report of the Survey Division is presented on a small but specialized group of services performed in the city government. Most of these services are in support of more impressive municipal operations, such as highway and sewer construction, the off-street parking program, new schools, hospitals, etc. Other services rendered to the public, while minor in nature, are, nevertheless, most necessary in a well-operated city. With forty-five employees as compared with eighty in 1940, we are not only performing all original functions but several new and expanded ones. For example, our highway surveys now include practically all of the work formerly done by the construction survey of the Highway Division. The preparation of highway alteration plans (specific repairs) has become an important work of which there was very little prior to 1940. Reproduction work has been extended from the making of only blueprints in 1940 to include photostats, ozalid and autopositive copies of plans and records. Our personnel problem is still a serious one. When recent eligible lists were established for engineering aides, we were unable to secure a single applicant for any of eight existing vacancies. Men qualifying in Civil Service choose to go with the Commonwealth where basic salary rates are higher and much overtime work available. This condition will continue so long as the city's wage scale for engineering personnel is below the state's.

In conclusion, it can be reported that the transition from Street Laying-Out Department to Public Works Department Survey Division has been accomplished with none of the confusion or time loss usually common to such a change. The newly-formed Public Improvement Commission served by this division was established and operating within a few days of the effective date of the reorganization. The employees, knowing their Civil Service rights, were in no way jeopardized, continued their work uninterrupted, and, in general, have performed their duties with competence and enthusiasm in a manner which is a credit to the division, the Public Works Department, and the City of Boston.

Respectfully submitted,

JAMES W. HALEY,
Chief Engineer, Survey Division.

APPENDIX G.

REPORT OF DIVISION ENGINEER OF THE
WATER DIVISION.

BOSTON, January 3, 1955.

To the Commissioner of Public Works.

DEAR SIR:

I respectfully submit the following report of the activities of the Water Division, operations and expenditures for the fiscal year ending December 31, 1954.

The tremendous increase in petitions for the extension of water mains into newly developed areas not covered by the water system, in all sections of the city, and the increase in applications for new services to new homes, made it necessary to have a special \$200,000 appropriation under the title of "Extension and Relay of Water Mains."

During the year a total of 29,269 linear feet, or 5.54 miles, of main pipe was laid, varying in size from 8 inches to 16 inches, and 780 applications were received for installation of new service pipes into new homes.

There were 24 petitions received for the extensions of water mains. The particular streets in which the above work was performed are shown on the accompanying tables.

The districts in which the main pipe was laid and relaid are as follows:

DISTRICT.	LAI D. Linear Feet.	RELAID. Linear Feet.
East Boston	97	0
City Proper	677.9	4,671.0
South Boston	0	531.0
Dorchester	8,676.2	940.3
West Roxbury	3,200.5	0
Hyde Park	7,782.6	444.5
Brighton	2,248.0	0

Under the provisions of chapter 4 of the Ordinances of 1952, which deals with capital improvements, the Water Division submitted a capital improvement pro-

gram, which program was not followed to any great extent due to the fact that all available funds were needed to extend water mains to provide water into residential areas.

ENGINEERING OFFICE.

The office force maintained its usual service to the public with information in relation to the Water Division, estimates on new service pipes, making out contracts, assisting the yard forces on Water Division matters, compiling official data, bringing the record plans to date, supervision of all construction and snow removal in areas Nos. 7 and 11.

The various agencies (municipal, state, and federal) were assisted in the design and supervision of construction of water mains on the following projects:

Central Artery — City square to North Station to Fort Hill square, construction. Design from Fort Hill square to Kneeland street.

William T. Morrissey Boulevard — South Boston and Dorchester.

Embankment road — City Proper.

South East Expressway — Dorchester.

Bellevue Hill Tower — West Roxbury (new tower location and distribution mains).

Long Island — Studies for new 12-inch steel main over viaduct.

Housing Authority — Completed Projects: Bromley park, Jamaica Plain and Roxbury, Columbia Point, South Boston.

The trestle that carried the 30-inch main that connected Charlestown with Chelsea at the Chelsea North Bridge over the Mystic River, has been dismantled, thus permanently discontinuing the water pipe connection between Chelsea and Charlestown.

The engineering forces were engaged in the latter part of 1954 in drawing plans for main pipe extensions in Providence street, Hyde Park, from Hyde Park avenue to Cleary square, Stony Brook Village, Hyde Park, main pipe extension, and plans for the installing of new meters on the unmetered Metropolitan water works connections of the High High service in West Roxbury.

THE DISTRIBUTION BRANCH.

The Distribution Branch, consisting of the main yard and four district yards, and responsible for the repair

and maintenance of main pipes, hydrants, service pipes, and gate valves, was assisted during the year by four contracting firms who assisted the department forces in the repairing of leaks and the laying of new and relaying of old service pipes.

THE MACHINE SHOP.

The machine shop and plumbing shop handled all the drilling and connecting of services in addition to the regular work carried on in these shops, such as the machining and assembling of gates, valves, and hydrants, and the department assisted the other branches of the Public Works Department in performing special jobs.

THE METER BRANCH.

The meter shop handled a total of 14,876 meters, divided as follows:

Meters applied on new services	715
Meters discontinued	733
Meters changed	5,027
Meters tested in shop	5,264
Meters repaired in service	603
Meters repaired in shop	1,380
Meters reset	426
Meters junked	728
<hr/>	
TOTAL	14,876

BUSINESS OFFICE.

This office performs all the work related to the processing of bills to property owners for water used and the maintenance of water meters.

These operations include receiving applications for new services and fire pipes; reading 95,000 meters quarterly; computing and preparing 382,000 bills amounting to \$6,230,000; keeping account of paid and unpaid bills; recording liens against delinquent consumers; testing, repairing, installing, and removing water meters.

It is unfortunate that for many years the surplus of the Water Department was not allowed to accumulate a reserve fund which would have been available when water receipts failed to meet expenditures. In 1954, receipts of the Water Department failed to meet expenditures and the department ended the year with a

deficit of \$116,562.91, which deficit had to be met from other sources than that of the sale of water. The department is now faced with the problem of finding additional revenue in order that the department may be self-supporting.

Main pipe petitions received	24
Domestic service applications	693
Fire pipe applications	54
Special meter tests	51
Hydrant permits issued	12
Repair deposits received	78
Miscellaneous deposits	14

APPROPRIATIONS, EXPENDITURES, AND REVENUE.

Budget appropriation for 1954	\$2,391,610 00
Amount expended	2,323,072 10

Unexpended balance \$68,537 90

Extension of main appropriation	\$200,000 00
Extension of main expenditure	116,888 04

Unexpended balance 83,111 96

Total unexpended balance \$151,649 86

Amount expended from all sources	\$6,155,831 37
Amount of money collected during the year 1954	6,039,268 46

Deficit \$116,562 91

The metropolitan assessment for 1954 amounted to \$3,313,909.84 at the rate of \$80 per million gallons, a decrease of \$31,486.80 over what the assessment for 1953 would have been if based on the \$80 per million gallon rate.

Total amount billed for 1954	\$6,197,924 57
Total amount collected for 1954 bills, as of December 31, 1954	\$4,861,659 46
Total amount abated for 1954 bills, as of December 31, 1954	\$19,403 35
Total amount collected in 1954 on bills rendered prior to 1954	\$1,061,361 00

The issuance of statements of outstanding water bills to the consumers before placing of liens on premises has been continued.

Respectfully submitted,

DANIEL M. SULLIVAN,
Division Engineer.

Financial Transactions, Water Service, 1954

Cash balance from 1953		\$674,706 93
Receipts		
Water rates and services	\$6,003,670 98	
Tax titles, water	35,597 48	
		<u>6,039,268 46</u>
		\$6,713,975 39
Expenditures from Revenue		
Pensions and annuities	\$160,060 33	
Water Division	2,323,072 10	
Water mains	116,888 04	
Collector's Office	187,114 75	
Refunds	510 25	
Metropolitan water assessment	3,313,909 84	
		<u>\$6,101,555 31</u>
Transfer of 1953 surplus to redemption of city loans	533,649 12	
		<u>6,635,204 43</u>
		\$78,770 96
Expenditures for Debt		
Boston water debt	\$36,000 00	
Interest	1,362 50	
		<u>37,362 50</u>
Cash balance December 31, 1954		\$41,408 46
Carried forward to 1955		157,971 37
		<u>\$116,562 91</u>

Construction Account

Extensions of mains (from revenue)		
Cost of construction December 31, 1954	\$24,916,068 00	
Cost of construction December 31, 1953	24,718,476 68	
		<u>\$197,591 32</u>
Increase in plant cost during 1954		
Cost of existing works December 31, 1954		
Pipe yards and buildings	\$84,332 16	
Distribution system	24,916,068 00	
Hyde Park water works	175,000 00	
		<u>\$25,175,400 16</u>
High pressure		2,448,340 64
		<u>\$27,623,740 80</u>

SHUTTING OFF AND TURNING ON WATER IN 1954.

Number of shut-offs for repairs	4,746
Number of premises turned on after repairs . . .	4,418
Number of shut-offs for vacancy	631
Number of premises turned on for occupancy . . .	305
Number of premises shut off for nonpayment of water rates	17
Number of premises turned on again after being shut off for nonpayment	1
Number of premises shut off on account of waste . . .	102
Number of premises turned on again after being shut off for waste	35
Number of new service pipes turned on for the first time	266
<hr/>	
Total number of times water was shut off or turned on	<u>10,521</u>

WATER STATISTICS FOR THE YEAR ENDING
DECEMBER 31, 1954.

Mains.

Kind of pipe: cast iron, wrought iron, steel
Size: 2 inches to 48 inches
Extended miles, 4.211
Size, enlarged, miles
Total miles now in use, 1,022.068
Public hydrants added, 29
Public hydrants now in use, 12,517
Stop gates, added, 96
Stop gates now in use, 16,467
Stop gates smaller than 4 inches, 36
Number of blowoffs, 861
Range of pressure on mains, 30 to 90 pounds

Service.

Kind of pipe and size: Lead and lead lined, $\frac{1}{2}$ -inch; cast iron, 2-inch to 16-inch; wrought iron and cement lined, $\frac{3}{4}$ -inch to 2-inch; brass and copper, $\frac{5}{8}$ -inch to 2 $\frac{1}{2}$ -inch. Service taps added. Total service taps now in use as per metered services.

Showing Length of Water Pipe and Connections Owned and Operated by Public Works Department, Water Division, Water Services, and Number of Valves in Same, December 31, 1954.

DIAMETER OF PIPE IN INCHES.																	
	48	42	40	36	30	24	20	16	14	12	10	8	6	4	3	2	Total.
Length owned and operated, December 31, 1953.	55,595	16,191	9,599	30,238	75,843	89,395	108,061	367,571	285	1,856,607	449,049	1,311,270	925,442	60,926	11,904	6,311	5,374,288
Gate valves in same.	26	4	5	31	50	76	71	775	14	3,283	1,576	4,841	3,307	546	18	18	16,371
Air valves in same.	60	5	10	35	113	84	53	101	...	64	1	101	5	...	1	13	545
Blowoffs in same.	11	5	6	11	33	37	52	76	...	166	40	203	141	66	9	5	861
Length laid and relaid during 1954	..	..	..	..	24	..	..	2,532	..	4,192	..	20,953	329	225	..	..	28,255
Gate valves in same.	7	..	..	..	..	..	..	7	..	12	..	74	3	1	..	..	97
Air valves in same.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Blowoffs in same.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Length abandoned in 1954.	..	..	..	..	472	..	..	518	..	891	..	858	3,278	..	1	..	6,017
Gate valves abandoned in 1954.	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Air valves abandoned in 1954.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Blowoffs abandoned in 1954.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Length owned and operated, De- cember 31, 1954, including high pressure fire service.	55,595	16,191	9,599	30,238	75,395	89,395	108,061	369,585	285	1,859,908	449,049	1,331,365	922,493	61,152	11,904	6,311	5,396,526
Gate valves in same.	26	4	5	31	50	76	71	782	14	5,295	1,576	4,915	3,039	546	18	18	16,467
Air valves in same.	60	5	10	35	113	84	53	101	...	64	1	101	5	...	1	13	545
Blowoffs in same.	11	5	6	11	33	37	52	76	...	166	40	203	141	66	9	5	861
High pressure fire service.	..	..	..	..	..	..	20,140	46,953	..	31,756	..	..	..	..	..	..	98,849

1,022.068 miles in distribution system, including high pressure fire service.
18,721 miles in high pressure fire service.

Total Number of Hydrants in System, December 31, 1954.

HYDRANTS.	Lowry.	Boston Lowry.	Boston Post.	Ordinary Post.	Batchelder and Finneran Post.	Ludlow Post.	Chapman Post.	Darling Post.	Mathews Post.	Boston Hydrant.	Mueller Post.	Total.
Public, December 31, 1953.....	461	248	2,150	2,167	6,457	4	....	6	....	91	7	11,54
Private, December 31, 1953.....	33	5	29	126	17	13	56	....	4	111	....	34
Established during 1954.....	2	....	....	14	113	....	....	....	....	....	....	12
Abandoned during 1954.....	7	....	6	63	24	....	....	....	....	....	....	10
Total, public, December 31, 1954.	456	248	2,144	2,118	6,546	4	....	6	....	91	7	11,64
Total, private, December 31, 1954	33	5	29	126	17	13	56	....	4	111	....	34

Total hydrants in service, 1953	11,985
Total hydrants established during 1954	129
Total hydrants abandoned during 1954	100
Total hydrants added during 1954	29
Total hydrants in service December 31, 1954	12,014
High pressure fire hydrants in service, 1954	503
Total hydrants (all kinds) in service December 31, 1954	12,517

Length of Main Pipe Owned and Operated by the City of Boston Water Service, December 31, 1954.

DIAMETER OF PIPE IN INCHES.																	
	48	42	40	36	30	24	20	16	14	12	10	8	6	4	3	2	Total.
Length owned and operated, De- cember 31, 1953.....	55,595	16,191	9,599	30,238	75,843	89,395	108,061	367,571	285	1,856,607	449,049	1,311,270	925,442	60,927	11,904	6,311	5,374,288
Length laid and relaid during 1954.....	.....	.....	.....	.....	24	.....	.....	2,532	.....	4,192	.....	20,953	329	225	.....	.....	28,255
Length abandoned during 1954.....	.....	.....	.....	.....	472	.....	.....	518	.....	891	.....	858	3,278	.....	.....	.....	6,017
Length owned and operated, De- cember 31, 1954.....	55,595	16,191	9,599	30,238	75,395	89,395	108,061	369,585	285	1,859,908	449,049	1,331,365	922,493	61,152	11,904	6,311	5,396,526
Length high pressure fire service....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	98,849

1,003.347 miles in distribution system of the City of Boston, December 31, 1954.
18.721 miles in high pressure fire service of the City of Boston, December 31, 1954.
1,022.068 total miles in service of the City of Boston, December 31, 1954.

Cost of Extension of Main Pipe, 1954.

STREET.	Location.	District.	Size. (Inches.)	Feet.	Material.	Labor.	Inspec- tion.	Contractor's Cost.	Total Cost.	Contractor or Other Agency.
Bromley Street Ext.	.....	Roxbury	16	900	\$8,118 84	\$647 50	\$398 50	†	\$9,164 84	Kelleher Co.—La Centra
Housing Roadway	.....	Roxbury	16	210	1,807 59	.....	98 40	†	1,905 99	Kelleher Co.—La Centra
Bickford Street Ext.	.....	Roxbury	16	480	4,715 08	.....	192 70	†	4,907 78	Kelleher Co.—La Centra
Addison st.	Chelsea st. under Boston & Albany Railroad.	East Boston	16	97	903 59	.....	47 40	\$960 00	1,910 99	R. A. Bucella Co.
Cummins H'way	Cor. Canterbury st.	Hyde Park	16	131	1,312 63	.....	63 60	1,354 07	2,730 30	Susi & DeSantis Co., Inc.
Hyde Park av.	Cor. Metropolitan av.	Hyde Park	16	160	1,589 12	.....	75 00	1,682 95	3,347 07	Susi & DeSantis Co., Inc.
Hyde Park av.	Cor. Metropolitan av.	Hyde Park	8	36	.....	.....	.....	108 00	108 00	Susi & DeSantis Co., Inc.
Mt. Vernon st.	Bet. Morrissey Blvd. and Blair rd.	Dorchester	12	3,034	15,895 40	981 89	542 00	8,859 30	26,278 59	Susi & DeSantis Co., Inc.
Mt. Vernon st.	Bet. Morrissey Blvd. and Blair rd.	Dorchester	8	107	.....	.....	.....	302 00	302 00	Susi & DeSantis Co., Inc.
Guest st.	Bet. Life st. and dead end.	Brighton	12	627	9,295 00	.....	108 00	758 20	10,161 20	J. D'Amico
Guest st.	Bet. Life st. and dead end.	Brighton	8	581	.....	.....	.....	700 00	700 00	J. D'Amico
Margo rd.	Bet. Brayton rd. and Newton line.	Brighton	8	912	5,999 31	.....	112 00	2,380 30	8,491 61	Ricci & DeSantis Co.
Kenrick st.	Dead end.	Brighton	8	128	587 95	.....	40 80	540 00	1,168 75	Exec. by Kelleher Co.
Joslin rd.	Bet. Brookline av. and Pilgrim rd.	Roxbury	8	331	2,376 12	.....	96 00	780 75	3,252 87	Susi & DeSantis Co., Inc.
Favre st.	Bet. Messinger st. and dead end.	Dorchester	8	248	1,695 78	63 20	64 00	787 30	2,610 28	Susi & DeSantis Co., Inc.
Messinger st.	Bet. Brockton and Favre sts.	Dorchester	8	297	1,855 76	47 80	112 10	765 00	2,780 66	Susi & DeSantis Co., Inc.
Corman rd.	Bet. Cummins H'way and dead end.	Dorchester	8	465	1,987 51	.....	92 12	2,372 95	4,452 58	D. Federico Co.
Faunce rd.	Bet. Constitution rd. and Cookson terrace.	Dorchester	8	167	600 12	.....	48 00	543 36	1,191 48	D. Federico Co.
Groveland st.	Bet. Manchester and Maryknoll sts.	Dorchester	8	843	3,651 94	.....	187 24	4,405 00	8,244 18	D. Federico Co.
Clearwater Dr.	From Groveland st.	Dorchester	8	22	.....	.....	.....	.....	.....	D. Federico Co.

Richrow st.....	8	159	497 84	.....	32 00	430 00	959 84	D. Federico Co.
Dania st.....	8	329	2,970 92	.....	36 50	.....	3,007 42	Susi & DeSantis Co., Inc.
Constitution rd.....	8	165	.....	.....	.....	.....	.....	Susi & DeSantis Co., Inc.
Cook ct.....	8	36	1,158 55	.....	72 00	1,471 71	2,702 26	Susi & DeSantis Co., Inc.
Viking ter.....	8	20	.....	.....	.....	.....	.....	Susi & DeSantis Co., Inc.
Belvoir rd.....	8	240	.....	.....	.....	.....	.....	Susi & DeSantis Co., Inc.
Blair rd.....	8	280	.....	.....	.....	.....	.....	Susi & DeSantis Co., Inc.
Brandon rd.....	8	495	.....	.....	.....	.....	.....	Susi & DeSantis Co., Inc.
Monticello rd.....	8	2,950	.....	.....	.....	.....	.....	Susi & DeSantis Co., Inc.
Montpelier rd.....	8	900	.....	.....	.....	.....	.....	Susi & DeSantis Co., Inc.
Parkway (private).....	6	272	.....	.....	.....	.....	.....	Homes, Inc.
Beacon st.....	6	57	.....	.....	.....	.....	.....	Appel & O'Toole
Beacon st.....	8	2,237	5,007 00	.....	80 00	\$15,630 63	20,717 63	Appel & O'Toole
DeStefano st.....	8	96	598 12	.....	42 00	425 00	1,065 12	Department
Newfield st.....	8	397	2,854 79	.....	160 00	1,189 20	4,203 99	Ricci & DeSantis Co.
Furbish rd.....	8	132	968 98	.....	64 00	.....	1,032 98	Ricci & DeSantis Co.
Cemo rd.....	8	462	1,452 98	.....	48 00	2,286 30	4,387 28	Ricci & DeSantis Co.
Walnut st.....	8	236	1,254 76	.....	96 00	736 10	2,086 36	Ricci & DeSantis Co.
Brownson ter.....	8	406	1,998 44	.....	135 50	2,140 23	4,274 17	Z & S Const. Co.
Aliano rd.....	8	503	2,814 75	.....	160 00	1,654 70	4,629 45	D. Federico Co.
Federal st.....	8	326	1,791 84	25 60	160 00	1,232 15	3,209 59	Susi & DeSantis Co., Inc.
Earnshaw st.....	8	53	207 51	7 30	97 60	501 16	813 57	D. Federico Co.
Wyvern st.....	8	190	1,054 33	.....	123 12	1,728 90	2,906 35	J. Freaney Co.
Brucewood st.....	8	416	.....	.....	184 50	2,284 60	6,307 82	Z & S Const. Co.
V. F. W. Pkwy.....	8	270	3,759 12	43 60	.....	.....	.....	.....
Mendell Way.....	4	225	897 12	.....	63 80	576 00	1,536 92	Exec. by Freaney Co.

Cost of Extension of Main Pipe, 1954.—Concluded.

STREET.	Location.	District	Size. (Inches.)	Feet.	Material.	Labor.	Inspection.	Contractor's Cost.	Total Cost.	Contractor or Other Agency.
Dietz rd.....	Bet. Daniel and Senders cts.....	Hyde Park	8	1,060	\$7,109 52	.....	\$153 12	\$3,541 13	\$10,803 77	Susi&DeSantis Co., Inc.
Dietz rd.....	From Alwin st.....	Hyde Park	8	249	.....	.....	.....	.....	.....	.....
Kardon rd.....	From Dietz rd.....	Hyde Park	8	279	1,615 24	.....	186 55	927 20	2,728 99	Susi&DeSantis Co., Inc.
Susanna ct.....	From Dietz rd.....	Hyde Park	8	233	1,158 55	\$27 20	64 00	668 57	1,918 32	Susi&DeSantis Co., Inc.
Dodge rd.....	From Dietz rd.....	Hyde Park	8	33	106 59	.....	16 00	142 80	265 39	Susi&DeSantis Co., Inc.
Wharton ct.....	From Dietz rd.....	Hyde Park	8	172	961 27	.....	31 50	808 80	1,801 57	Susi&DeSantis Co., Inc.
Senders ct.....	From Dietz rd.....	Hyde Park	8	425	2,322 51	35 80	120 00	1,340 35	3,818 66	Susi&DeSantis Co., Inc.
Daniel ct.....	From Dietz rd.....	Hyde Park	8	175	1,369 52	.....	38 00	142 80	1,550 32	Susi&DeSantis Co., Inc.
Perry ct.....	From Dietz rd.....	Hyde Park	8	26	86 59	.....	16 00	142 80	245 39	Susi&DeSantis Co., Inc.
Forest st.....	Bet. Millstone rd. and dead end.....	Hyde Park	8	96	501 68	14 60	184 20	†	700 48	J. Freaney Co.
Safford st.....	Cor. Derry rd.....	Hyde Park	8	244	1,178 97	33 60	82 00	\$855 10	2,149 67	D. Federico Co.
Westminster st.....	Bet. Derry rd. and Ayles st.....	Hyde Park	8	246	1,184 01	.....	90 00	1,067 22	2,341 23	D. Federico Co.
Derry rd.....	Bet. Safford and Westminster sts.....	Hyde Park	8	554	2,789 12	66 20	257 00	1,234 40	4,346 72	D. Federico Co.
Sherrin st.....	From Ruffing st.....	Hyde Park	8	379	1,601 11	33 10	189 00	1,810 00	3,633 21	D. Federico Co.
Ruffing st.....	Bet. Sherrin st. and Lodgehill rd.....	Hyde Park	8	228	487 32	.....	67 00	1,997 88	2,552 20	D. Federico Co.
Woodland rd.....	Bet. River st and Taunton av.....	Hyde Park	8	179	961 88	.....	44 60	179 00	1,185 48	D. Federico Co.
	Totals.....	.....	.....	26,206	\$115,148 17	\$2,027 39	\$5,371 85	\$75,043 91	\$197,591 32	

† By Contractor

Cost of Replacement of Main Pipe, 1954.

STREET.	Location.	District.	Size. (Inches.)	Feet.	Material.	Labor	Inspec- tion.	Original size. (Inches.)	Feet. Abandoned.	Contract Cost.	Total Cost.	Contractor or Other Agency.
D st.....	.....	S. Boston	30	24	\$ 273 06	.....	\$32 73	30	24	\$1,134 45	\$1,440 24	.....
West Second st.....	Bet. E and F sts.....	S. Boston	12	531	6,001 73	.....	80 00	12	531	3,325 20	9,406 93	Susi & DeSantis Co.
Fargo st.....	Cor. E st.....	S. Boston	16	108	1,061 49	.....	48 00	16	108	1,269 60	2,379 09	Appel & O'Toole
Hyde Park av.....	Bet. River and Providence sts	Hyde Park	16	238	2,874 92	.....	40 55	8	238	2,300 86	5,216 33	Susi & DeSantis Co.
Providence st.....	From Hyde Park av.....	Hyde Park	16	208	1,901 69	.....	48 00	6	208	2,270 86	4,220 55	Susi & DeSantis Co.
Richview st.....	Bet. Hillside and Hillside st....	Dorchester	8	940	8,643 51	.....	192 00	6	940	.....	8,835 51	.....
Mystic River.....	.....	Charlestown	.....	.....	4,957 06	.....	233 60	30	448	5,504 00	10,604 66	Wm. A. Ellis Co.
Centre st.....	.....	Roxbury	.....	.....	.....	.....	.....	6	220	.....	.....	Kelleher Co. & La Centra Co.
Bromley st.....	.....	Roxbury	.....	.....	.....	.....	.....	6	680	.....	.....	Kelleher Co. & La Centra Co.
Bromley pk.....	.....	Roxbury	.....	.....	.....	.....	.....	6	620	.....	.....	Kelleher Co. & La Centra Co.
Bromley pk.....	.....	Roxbury	.....	.....	.....	.....	.....	8	620	.....	.....	Kelleher Co. & La Centra Co.
Plant av.....	.....	Roxbury	.....	.....	.....	.....	.....	6	200	.....	.....	Kelleher Co. & La Centra Co.
St. Catherine st.....	.....	Roxbury	.....	.....	.....	.....	.....	6	220	.....	.....	Kelleher Co. & La Centra Co.
Albert st.....	.....	Roxbury	.....	.....	.....	.....	.....	6	190	.....	.....	Kelleher Co. & La Centra Co.
Parker st.....	.....	Roxbury	.....	.....	.....	.....	.....	12	360	.....	.....	Kelleher Co. & La Centra Co.
Parker st.....	.....	Roxbury	.....	.....	.....	.....	.....	6	410	.....	.....	Kelleher Co. & La Centra Co.
Total.....	.....	.....	.....	2,049	\$25,713 46	.....	\$674 88	.....	6,017	\$15,804 97	\$42,193 31	.....

Size. (Inches.)	Feet.	Size. (Inches.)	ABANDONED.	Feet.
8	940	6	.....	3,688
12	531	8	.....	858
16	554	12	.....	891
30	24	16	.....	108
Total.....	2,049	30	.....	472
Total.....	2,049	Total.....	.....	6,017

APPENDIX H.

REPORT OF THE
PUBLIC IMPROVEMENT COMMISSION.

BOSTON, January 3, 1955.

HON. JOHN B. HYNES,

*Mayor of Boston.**Through the Commissioner of Public Works.*

DEAR MR. MAYOR:

In accordance with the provisions of section 24, chapter 3 of the Revised City Ordinances of 1947, the following report of the Public Improvement Commission for the period beginning May 1, 1954, and ending December 31, 1954, is respectfully submitted.

The Public Improvement Commission was established May 1, 1954, by the provisions of section 57, chapter 2 of the 1954 Ordinances. This commission, consisting of the Commissioner of Public Works, the Commissioner of Real Property, and the Chairman of the Boston Traffic Commission, was assigned all of the powers and duties of the former Board of Street Commissioners, except:

- (a) Those relating to the storage and sale of inflammables, filling stations, and parking lots which were transferred to the Committee on Licenses in the Public Safety Commission;
- (b) Those relating to the planting and removal of trees in public ways, the use of public ways for any temporary obstruction in, under, or over the same, and the use of public ways for the storage and sale of merchandise which were transferred to the Commissioner of Public Works; and
- (c) Those relating to the abatement of taxes which were transferred to the Real Property Department.

Functions of the Board of Street Commissioners transferred to this commission include the authority to lay out, widen, relocate, alter, discontinue, or rename public highways, and to order the making of specific repairs therein; to order the construction of sanitary sewers and storm drains; to take land by eminent domain for municipal purposes (except hous-

ing and off-street parking); to permit the opening of private ways for public travel; to levy assessments for street, sidewalk, and sewer betterments; and to issue permits for the location of wire-carrying poles, conduits, pipes, tracks, and similar uses of the public ways.

The first meeting of the Public Improvement Commission was held May 7, 1954. Present were Public Works Commissioner George G. Hyland, who was elected Chairman; Commissioner of Real Property Herman Carp, who was elected Vice-Chairman; and Chairman of the Boston Traffic Commission, William Arthur Reilly. Chief Engineer James W. Haley and Head Clerk Michael J. Corrao, both of the Survey Division of the Public Works Department, were designated by the Commissioner of Public Works to serve as Chief Engineer and Secretary, respectively, to the Public Improvement Commission.

STREET PROGRAM.

During the period covered by this report, sixty-seven (67) highway improvements, including the widening and relocation of twenty-five (25) public ways, the making of specific repairs in twenty-nine (29) existing streets, the laying out of eleven (11) new highways, and two (2) new footways, were ordered by the Public Improvement Commission.

Of particular interest in these groups are the following projects:

The laying out and construction of Terminal street, Charlestown, at an estimated cost of \$85,089. This street will extend through the Mystic Docks, 3,100 feet from Chelsea street to the new Port Authority Terminal. It will be constructed in 1955 under the State's Chapter 90 program. After its completion, the Chelsea Street Drawbridge, now being operated at a cost of \$35,000 per year, can be abandoned.

The widening and relocation of Centre street, West Roxbury, from Spring street to Northdale road, at an estimated cost of \$160,000. This street, one of the principal public ways in West Roxbury, has been unimproved since the time the town of West Roxbury was annexed to Boston, and the proposed widening to a minimum of 50 feet will be a major improvement to the outer section of West Roxbury.

The widening of A street, South Boston, from Congress street to Dorchester avenue, at an estimated cost of \$84,000. A street has served as an alternate route from Old Colony avenue to downtown Boston for many years. Because of the many

large warehouses with shipping doors directly on the street for loading large trailer trucks, the effective roadway width permitted only a single line of vehicular traffic to pass, and, consequently, one-way traffic has been in effect for some years. In the area where this constriction has occurred, the street has been widened 20 feet. Along the remaining sections, the roadway has been widened approximately 6 feet by reducing existing sidewalk widths.

The widening and relocation of Forest Hills street, West Roxbury, from Glen road to Cemetery road, and the widening of the roadway of Cemetery road, from Forest Hills street to Morton street, at an estimated cost of \$120,000. This section of Forest Hills street, a steep and winding road, carries a moderately heavy volume of traffic. Several of the curves being eliminated by this improvement have been considered extremely dangerous.

The improvement of Morton street, West Roxbury, from Forest Hills Overpass to Harvard street, consisting of the installation of traffic divisional islands in connection with highway reconstruction, at a total estimated cost of \$140,000.

The improvement of Hyde Park avenue, West Roxbury and Hyde Park, from Walk Hill street to Metropolitan avenue, consisting of the installation of traffic divisional islands in connection with highway reconstruction, at a total estimated cost of \$308,000.

The improvement of Cummins Highway, in West Roxbury, at American Legion Highway, and in Dorchester, from Harvard street to Mattapan square, consisting of the installation of traffic divisional islands in connection with highway reconstruction, at a total estimated cost of \$240,000.

All highway improvements ordered during the period of this report were as follows:

Alwin street, Hyde Park district, from Turtle Pond Parkway to the Dedham Parkway; length, 1,111 feet; estimated cost, \$23,621; estimated benefit, \$11,724.69.

Bradeen Street Footway, West Roxbury district, from Bradeen street to Brookway terrace; length, 170 feet; estimated cost, none; estimated benefit, none.

Brookway Footpath, West Roxbury district, from Brookway terrace to Hyde Park avenue; length, 432 feet; estimated cost, none; estimated benefit, none.

Brookway Road Extension, West Roxbury district, from Archdale road approximately 235 feet southerly, over and including a portion of Archdale road (without construction); length, 236 feet; estimated cost, none; estimated benefit, none.

Brookway Road Extension, West Roxbury district, from Elven road to Archdale road (without construction); length, 387 feet; estimated cost, none; estimated benefit, none.

Brookway terrace, West Roxbury district, from Brookway road to Brookway Footpath (without construction); length, 441 feet; estimated cost, none; estimated benefit, none.

Cheryl Lane, Hyde Park district, from Alwin terrace approximately 375 feet westerly and northerly; length, 375 feet; estimated cost, \$6,438; estimated benefit, \$3,940.50.

Garfield avenue, Hyde Park district, from Faraday street approximately 162 feet northeasterly; length, 162 feet; estimated cost, none; estimated benefit, none.

Merriam street, West Roxbury district, from Brookside avenue to Stony Brook and over Cable street to Minton street (formerly Cable and Merriam streets); length, 505 feet; estimated cost, \$9,598; estimated benefit, \$4,796.47.

Ruggles court, Roxbury district, from Ruggles street approximately 258 feet southwesterly (formerly Goldsmith place); length, 258 feet; estimated cost, none; estimated benefit, none.

Stonehill road, Hyde Park district, from Alwin street to Alwin street, over and including the private ways known as Alwin terrace and Alwin court (formerly Alwin terrace); length, 999 feet; estimated cost, \$17,110; estimated benefit, \$10,068.74.

Terminal street, Charlestown district, from Medford street northerly and northeasterly for a distance of approximately 3,100 feet; length, 3,100 feet; estimated cost, \$85,089; estimated benefit, none.

WIDENED OR RELOCATED.

A street, South Boston district, widened and relocated on the westerly side, approximately 617 feet southwesterly.

Brigham street, East Boston district, widened at the northwesterly corner of Ida street and the northeasterly side of Brigham street.

Canterbury street, West Roxbury district, widened at the northwesterly and southeasterly corners of Hyde Park avenue.

Canterbury street, West Roxbury district, widened between Poplar street and Seymour street.

Centre street, West Roxbury district, widened, relocated, and constructed from Spring street to Grove street.

Chapman street, Charlestown district, widened and constructed at the westerly corner of Rutherford avenue.

Cummins Highway, West Roxbury district, widened and constructed at the southerly corner of Washington street.

Fairway street, Dorchester district, widened and constructed at the northerly and easterly corners of Cummins Highway.

Forest Hills street, West Roxbury district, widened, relocated, and constructed from Glen road to Cemetery road.

Glenley terrace, Brighton district, widened at the southerly corner of Brayton road.

Harvard street, Dorchester district, widened and relocated on the westerly side of the southerly corner of Franklin Hill avenue.

Harvard street, West Roxbury district, widened and constructed at the northerly corner of Cummins Highway.

Hollingsworth street, Dorchester district, widened and constructed at the southeasterly corner of Cummins Highway.

Hyde Park avenue, Hyde Park district, widened, relocated, and constructed between Metropolitan avenue and approximately 250 feet southerly.

Morton street, West Roxbury district, widened and constructed at the southerly corner of Canterbury street.

Morton street, West Roxbury district, widened and relocated from Cemetery road approximately 425 feet westerly over and including Arborway.

Mother Julia road, Dorchester district, widened and constructed on the southerly side from Dorchester avenue approximately 225 feet westerly.

Newmarket square, Roxbury district, part of the highway relocated and constructed from Massachusetts avenue approximately 800 feet northerly.

Pond street, West Roxbury district, widened and relocated between Avon street and the Brookline boundary line.

Public Alley No. 908, Boston Proper district, widened and constructed on the southeasterly side, at the bend, approximately 100 feet north of Marlborough street.

Regis road, Dorchester district, widened and constructed at the northerly and easterly corners of Cummins Highway.

West street, Hyde Park district, widened at the southwesterly and northwesterly corners of Hyde Park avenue.

GRADES REVISED.

Parklawn road, West Roxbury district, from Courtney road approximately 145 feet northerly.

Rockland street, West Roxbury district, between Washington street and the Dedham line.

SPECIFIC REPAIRS.

A street, South Boston district, between Congress street and Dorchester avenue.

Adams street, Dorchester district, at the intersection of Neponset avenue and Parkman street, consisting of the reduction in width of the existing sidewalk and the installation of a traffic divisional island.

Adams street, Dorchester district, between Minot street and Gallivan Boulevard, consisting of the reduction in width of the existing sidewalks.

American Legion Highway, West Roxbury district, consisting of the construction of sidewalks and traffic divisional islands and the widening of existing roadways at Cummins Highway.

Arlington street, Boston Proper district, consisting of the reduction in width of the existing sidewalk at the southeasterly corner of Commonwealth avenue.

Atlantic avenue, Boston Proper district, consisting of increasing the curb corner radius at the northerly corner of Kneeland street.

Beacon street, Brighton district, consisting of the reduction in width of the existing northerly sidewalk to 10 feet between Chestnut Hill avenue and a point 100 feet easterly of Sutherland road.

Blue Hill avenue, Dorchester district, consisting of the installation of traffic divisional islands, between Harvard street and Angell street.

Blue Hill avenue, Roxbury district, consisting of the installation of traffic divisional islands, between Geneva avenue and Warren street.

Bowdoin street, Dorchester district, consisting of the installation of a traffic divisional island at the intersection of Geneva avenue.

Boylston street, Boston Proper district, consisting of the reduction in width of the existing sidewalk at the northwesterly corner of Arlington street.

Brigham street, East Boston district, consisting of the reduction in width of the existing sidewalks to 3.5 feet.

Charles street, Boston Proper district, consisting of increasing the curb radius at the southeasterly corner of Branch street and at the northeasterly and southeasterly corners of Chestnut street.

Charles street, Boston Proper district, consisting of increasing the curb corner radius at the southwesterly and north-easterly corners of Pinckney street.

Charles street, Boston Proper district, consisting of increasing the curb corner radius at the northeasterly and south-easterly corners of Revere street.

Chestnut street, Boston Proper district, consisting of the reduction in width of the existing sidewalk at the northwesterly corner of West Cedar street.

Columbus avenue, Roxbury district, consisting of the installation of traffic divisional islands at the intersection of Tremont street.

Cummins Highway, West Roxbury district, consisting of the relocation of the existing sidewalk on the easterly side between Harvard street and a point approximately 100 feet northerly thereof.

Cummins Highway, Dorchester district, consisting of the reduction in width of the existing sidewalks and the installation of a traffic divisional island, between Woodhaven street and River street.

Harvard avenue, Hyde Park district, consisting of the installation of a traffic divisional island at the intersection of Hyde Park avenue.

Huntington avenue, Roxbury district, consisting of the reduction in width of the existing sidewalks from Tremont street to Riverway.

Hyde Park avenue, West Roxbury and Hyde Park districts, from Walk Hill street to Metropolitan avenue, consisting of the reduction in width of sidewalks from 13 feet to 9 feet, and the installation of a divisional island.

Marlborough street, Boston Proper district, consisting of increasing the curb corner radii at Public Alley No. 908.

Massachusetts avenue, Boston Proper district, consisting of increasing the curb corner radii at Public Alley No. 908.

Morton street, West Roxbury district, consisting of the installation of a median island from Cemetery road to Harvard street.

Mt. Vernon street, Boston Proper district, between Charles street and West Cedar street, consisting of the reduction in width of sidewalks.

Talbot avenue, Dorchester district, consisting of the reduction in width of the existing sidewalk and the installation of traffic divisional islands at the intersection of Blue Hill avenue.

Talbot avenue, Dorchester district, consisting of the reduction in width of the existing sidewalk on the westerly side of Talbot avenue, at the intersection of Ashmont street, and the installation of traffic divisional islands.

DISCONTINUED.

Centre street, West Roxbury district, westerly side, between Hillcroft road and Louder's Lane.

Newmarket square, Roxbury district, from Massachusetts avenue approximately 800 feet northerly.

PRIVATE WAY RENAMED.

Chappie court, Charlestown district, leading from 60 Chappie street (formerly Mystic place).

SEWER PROGRAM.

During the period of this report the construction of 2.61 miles of sanitary sewer, 2.76 miles of storm sewer, 65 catch basins, and 5 drop inlets were ordered at a total estimated cost of \$270,895. Estimated benefit to private property for the construction of the 2.61 miles of sanitary sewer amounted to \$78,436.67.

Sewerage works ordered were as follows:

LOCATION.	Sanitary Sower. (feet.)	Surface Drain. (feet.)	Catch Basins.	Drop Inlets.	Estimated Cost.	Estimated Benefit.
Boston Proper						
Arlington street			1		\$350 00	
Newland street			1		700 00	
Brighton						
Cleveland Circle				1	400 00	
*Margo road	940	940			10,400 00	\$6,480 00
Charlestown						
Chapman street and Rutherford avenue		27	1		500 00	
Dorchester						
Clearwater Drive	55	55			1,200 00	
Dorchester avenue			4		2,600 00	
*Groveland street	785				13,500 00	5,040 00
Hyde Park						
Alwin street			7		9,400 00	
*Dell terrace	208				2,800 00	1,230 00
*Derry road	645	645			9,160 00	3,870 00
*Dietz road	1,080	1,080			19,600 00	5,466 79
*Dodge road	384	394			7,000 00	1,500 00
*Daniel court	180				2,200 00	1,118 65
*Eastmont road	465	465			8,700 00	2,850 00
*Farwell avenue	200	200	5		2,500 00	1,200 00
*Kristin court	162	50			2,500 00	1,800 00
*Leighton road	1,104	1,067			19,000 00	6,625 00
Norton street		670	6		7,485 00	
*Senders court	435	250			6,300 00	3,090 49
*Sherrin street	308	308			4,500 00	1,848 00
Summit street		260	17		11,000 00	
*Susanna court	225				2,700 00	1,426 38
West street				1	370 00	
Westminster street	250				7,810 00	
*Wharton court	180				2,200 00	1,426 38
South Boston						
Bantry Way		75	2		1,500 00	
Silver street	100				1,500 00	325 00

LOCATION.	Sanitary Sewer. (Feet.)	Surface Drain. (Feet.)	Catch Basins.	Drop Inlets.	Estimated Cost.	Estimated Benefit.
West Roxbury						
*Atwill road.....	660	.....	.....	.....	\$8,600 00	\$3,960 00
Bellevue Hill road.....	322	322	.....	.....	4,800 00	1,000 00
Brook Farm road.....	50	50	.....	.....	700 00	
*Brownson terrace.....	375	375	.....	.....	5,500 00	2,250 00
*Brucewood street.....	720	720	.....	.....	4,320 00	4,319 98
Centre street.....	150	1,680	12	.....	25,000 00	
Centre street.....	.....	.....	5	.....	2,500 00	
Centre street.....	.....	.....	4	.....	2,000 00	
*Clarendon avenue.....	180	180	.....	.....	1,900 00	550 00
*Driftwood road.....	400	400	.....	.....	4,500 00	2,058 00
*Federal road.....	150	150	.....	.....	3,000 00	1,800 00
*Furbush road.....	150	150	.....	.....	9,300 00	1,200 00
*Glendower street.....	500	490	.....	.....	5,500 00	3,000 00
*Mosssdale road.....	1,560	1,560	.....	.....	17,000 00	9,702 00
Moss Hill road.....	.....	782	.....	.....	6,500 00	
*Newfield street.....	400	600	.....	.....	5,200 00	2,400 00
Pond street.....	.....	.....	.....	3	1,000 00	
*Sherman street.....	150	150	.....	.....	1,200 00	900 00
V. F. W. Parkway.....	325	385	.....	.....	4,500 00	
Total.....	13,798	14,480	65	5	\$270,895 00	\$78,436 68

* Eastments taken.

EMINENT DOMAIN LAND TAKINGS.

During the period of this report the following land takings were made at the request of the Public Works Commissioner:

A parcel of land, for use of the Sanitary Division, Public Works Department, containing 492,397 square feet, located in the vicinity of Gardner street, West Roxbury, that was taken November 22, 1954.

An easement for the installation of a Public Works Department water main in private lands, between Cummins Highway, West Roxbury, and Grant place, Hyde Park, containing 279,951 square feet, was taken December 6, 1954.

ASSESSMENTS.

During the period of this report, the Highway Division of the Public Works Department sent notice of completion of 20 streets at a total cost of \$433,509.96. These streets were previously ordered constructed by the Board of Street Commissioners. On this work the Public Improvement Commission voted upon assessments in the amount of \$113,129.11. During this same period the Sewer Division of the Public Works Department reported the completion of construction of sanitary sewerage in 14 streets at a cost of \$81,583.86, on which this commission levied assessments in the amount of \$26,761.50.

The completion of new sidewalks in four streets at a cost of \$41,901.60, constructed by the City Council, was also reported by the Highway Division. On these, this commission levied betterment assessments totaling \$18,392.70.

Street Assessments.

STREET.	District.	Cost.	Assessment.
Andria road.....	Hyde Park	\$5,000 43	\$2,222 58
Austin street.....	Hyde Park	34,313 53	10,045 12
Badger road.....	Hyde Park	22,905 50	12,701 92
Beech street.....	West Roxbury	32,335 14	1,361 22
Beram avenue.....	West Roxbury	7,322 04	575 00
Cranmore road.....	Hyde Park	31,474 25	8,869 32
Empire street.....	Brighton	19,009 32	7,475 40
Eugenia road.....	West Roxbury	8,661 81	3,436 23
George street.....	Hyde Park	8,681 72	2,037 40
Halsey road.....	Hyde Park	13,613 72	7,780 94
Lochland road.....	Hyde Park	17,854 05	6,752 72
Mayflower street.....	Brighton	3,700 15	1,263 54
Oakmere street.....	West Roxbury	38,382 00	13,077 58
Poplar street.....	West Roxbury	115,126 46	10,169 23
Presentation road.....	Brighton	6,416 91	2,162 28
Solaris road.....	Hyde Park	11,956 50	4,975 06
Southview street.....	Dorchester	10,655 01	3,329 64
Van Brunt street.....	Hyde Park	23,876 14	9,473 86
Verona street.....	West Roxbury	10,849 91	1,611 25
Wilton street.....	Hyde Park	10,375 37	3,807 82
TOTALS.....	.....	\$433,509 96	\$113,129 11

Sewer Assessments.

STREET.	District.	Cost.	Assessment.
Alwin street, Alwin court, Alwin terrace, Cheryl Lane.....	Hyde Park	\$34,330 46	\$12,063 60
Ayles road, Westminster street.....	Hyde Park	5,300 00	2,842 00
Cricket Lane.....	West Roxbury	4,100 00	1,000 00
Dietz road.....	Hyde Park	3,047 00	1,103 50
Guest street.....	Brighton	3,767 00	1,260 00
Hemlock road.....	West Roxbury	1,570 97	480 00
Joslin road.....	Roxbury	1,300 00	708 00
Kardon road.....	Hyde Park	3,043 70	2,148 30
William T. Morrissey Boulevard....	Dorchester	21,689 53	3,866 10
Rutledge street.....	West Roxbury	3,435 20	1,290 00
TOTALS.....		\$81,583 86	\$26,761 50

Sidewalk Assessments.

STREET.	District.	Cost.	Assessment.
Courtney road.....	West Roxbury	\$9,513 50	\$4,414 49
Hollywood road.....	West Roxbury	10,876 30	5,629 63
Martin street.....	West Roxbury	8,594 60	4,248 58
Woodard road.....	West Roxbury	12,917 20	4,100 00
TOTALS.....		\$41,901 60	\$18,392 70

LAND DAMAGES.

On new street construction, 110 claims were filed for damages to property resulting from land takings or changes in grade. On these claims, this commission awarded damages in the amount of \$22,636.76.

STREET NAME CHANGES.

In conformance with chapter 55, Acts of 1951, as amended, a program was inaugurated for the naming and renaming of the private ways in the City of Boston. Until the passage of this legislation, private ways were named by the abutting property owners. Over a period of years, lack of municipal control had resulted in confusion and duplication in private street names throughout the city.

During the past three months, public hearings have been scheduled on the naming of all of the approximately 2,000 private ways in the city. Wherever it was felt that the original name was unsatisfactory, a new name was assigned, provided there was no serious objection from the property owners.

In connection with the renaming of private ways, a revised edition of "Boston's Streets" has been prepared to be published in the early part of 1955.

MISCELLANEOUS PERMITS.

During the period of this report, 437 permits were issued to utility companies for the placing and maintaining of poles for the supports of wires.

Also, seven permits were issued for miscellaneous installation or uses of the public highways of the City of Boston as follows:

STREET.	Petitioner.	Nature of Permit.
Braintree street, Brighton	E. T. Ryan Iron Works, Inc.	Underground structure (steam pipe).
Park and Clayton streets, Dorchester	Sturtevant Mill Company	Underground structure (steam line).
Columbus avenue, Roxbury	Crystal Coal & Oil Company	Underground flushbox.
Fruit street, Boston Proper	Massachusetts Eye & Ear Infirmary	Underground transformer vault.
East First street, South Boston	New England Greyhound Lines, Inc.	Underground steam line.
Meridian street, East Boston	Louis Vitale (Cheer Up Tavern)	Enlarge existing manhole
Franklin street, Hyde Park	Worcester Gas Light Company	Underground structure (gas main).

SUMMARY.

As hereinbefore noted, this commission was established May 1, 1955, under the provisions of section 57, chapter 2 of the 1954 Ordinances. Within a few days the first meeting was held and the necessary organizational work carried out in such a manner that the Board of Street Commissioner's functions were taken over without interruption or confusion of any nature.

At the outset, the commission felt that a highway program, placing special emphasis on improvement of existing highways, was necessary. Accordingly, our activities have been primarily in this direction. Nevertheless, careful consideration has been given the many

petitions for acceptance of new streets and a program will soon be in operation to accept as many unpaved private ways as can be constructed from available funds. New sewerage works have been ordered wherever needed to meet the requirement of new building construction and plans are now being prepared for a long-range program for placing the remaining open drainage and brooks in the outlying sections of the city in conduits.

In conclusion, we are most pleased to report that in its first year the commission has accomplished a most successful program, made possible especially by the engineering and administrative assistance furnished by the personnel of the Public Works Department.

GEORGE G. HYLAND,
Chairman.

HERMAN CARP,
Vice Chairman.

WM. ARTHUR REILLY,
Member.

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